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False Impressions of Oil Industry Spread by Low Price Stations

By V. B. Guthrie, Managing Editor

LIMA, O., July 8

MISLEADING impressions concerning the oil distributing business are being put before the public in the advertising and sales talks of some of the "low price" bulk gasoline stations which are springing up at different points in Ohio and adjoining states.

The public doesn't believe all this advertising, by any means, talks with people in towns where these stations are, show. These stations give only one side of the story, and leave the impression they have hit on a new method of merchandising gasoline, which the oil companies have overlooked, and which gives the public a great saving from buying at the established oil company stations.

What the public does not understand is that the so-called "low price" station is getting into the oil distributing business only on the principle of the "cash and carry" chain store. These stations tell the public they have bargain gasoline, but the public must come to their place of business to get that gasoline and their places are of their own choosing, for low cost of operation, rather than for the convenience of the public. They cannot give tank wagon deliveries to country trade. They cannot extend credit, or give many of the services the established oil company furnishes, the cost of which must be reflected in its prices.

The starting in business of these "low price" stations is helped by the present margin between the tank car price of gasoline and the price to the public. Most of them sell for 3 and 4 cents under the general price at oil company stations. Many stations which are not bulk or railroad stations—in that they cannot unload into their storage direct from tank cars and thus save trucking and bulk station costs—also advertise as such, which gives the public the impression of a larger number of such stations than have actually been put in.

However, it is very likely that this type of station has come into the gasoline distributing business to stay, and that the established oil companies will have to consider their competition in the future, even on much narrower than present margins. They get the patronage of that part of the motoring public that is willing to go out of its way to save 2 cents or so a gallon on gasoline, and does not expect the service which the oil companies give at their stations.

F. X. Ebner's station at Lima, O., in its advertising, furnishes an example of misleading advertising some of these stations are doing. "Our stations will save patrons thousands of dollars and will give them better gasoline and oil because of our method of sales from tank cars," read one advertisement. Of course Ebner's station is not selling a better gasoline than is to be found at some stations, although he does have a good gasoline, which tests some better than U. S. motor specifications for initial and end points but in one test ran a little high at 90 per cent.

Again Ebner talks of his gasoline costing 10 cents delivered in Lima; and, with the 3-cent tax, having a 2-cent "profit" at 15 cents to the public. This 2 cents is margin, and all his expenses would have to come out before he would have a true profit.

EBNER is one of a family of a father and sons, who have been in the coal business in Lima for several years and have run a gasoline station at their coal yard for five years. They bought a gasoline station in the north part of Lima which had been built to sell by a former Standard Oil Co. man. This station opened for business June 9 on the same appeal as the Wolfe station at Findlay, (discussed in July 6 issue of NATIONAL PETROLEUM NEWS) that of being a public benefactor in bringing lower gasoline prices to the public.

This station is now selling motor gasoline at 15 cents. Various other

Average for 91 Days Is 2446 Gallons

FINDLAY, O., July 8.—The "low price" gasoline station of Maurice Wolfe, head of the Meteor Car Co., Piqua, O., at Findlay, O., sold 222,627 gallons of gasoline from April 15 to July 1, according to advertisements Wolfe is running in a Findlay newspaper. This is at the rate of 2,446 gallons a day.

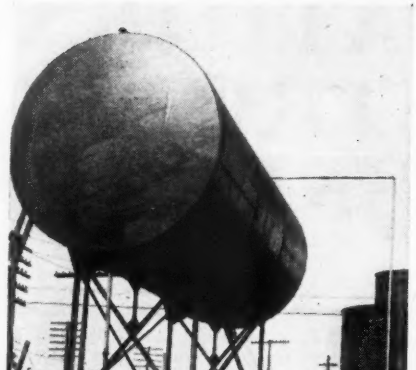
During the same period the station sold 5,987 gallons of lubricating oil. This is at the rate of 65 gallons a day. This is at the rate of one gallon of oil to 37 gallons of gasoline, a low ratio for most stations.

The advertisement goes on to say the station saved motorists of Hancock county $8904.92 on gasoline (at the rate of 4 cents a gallon and $1496.75 on oil at the rate of 25 cents a gallon). The station sells oil for 15 cents a quart, or 50 cents a gallon.

At this rate of operation, the saving to motorists patronizing this station will amount to "nearly $125,000 a year benefit," Wolfe said in the advertisement.

stations are selling for 14 to 16 cents, and the Standard Oil Co. of Ohio, Roxana Petroleum Corp., Pure Oil Co., and some others are holding a 19-cent price.

Ebner's station consists of a wooden shack which serves as the station office in the front part and for barrel storage in the rear. The station uses meters and gasoline is fed by gravity from a 15,000-gallon upright tank erected not over 50 feet from the rear of the station building. Gasoline is pumped from tank cars on a nearby siding to this storage tank by an electric pump which is placed in a wooden box with a wooden cover on the ground nearly under the tank. Wiring which carries current from the street to the pump is unprotected and is fastened to the steel support to the tank. There are no pipes around this tank. There is a residence within 100 feet of the tank, and an industrial plant also that close. Autos park along the street within 50 feet of the tank.



Bulk storage tank of the Ebner station at Lima, O. The electric pump which pumps to this storage from tank cars on the siding in the background, is in the wooden box on the ground at the right of the picture. Electric wiring is fastened to the steel cradle which supports the tank

THE station sells a Pennsylvania lubricating oil for 25 cents a quart and it also handles Veedol at the regular price of 30 cents. The station is getting a good volume of business, a lot of it of the two and three-gallon kind.

Ebner hired Memorial Hall in Lima for the night of June 21 and announced he was going to "expose" the oil business for any who might wish to come. About 200 showed up. The meeting was announced in a full page advertisement in the *Lima Star* June 19. "What about the Anti-Trust Law?" was blazoned across the top of the page in big type. Ebrer then printed a signed statement in which he said: "I have received a warning from an official of an out-of-town oil company operating stations in Lima, who came to my station and said, 'Ebner, I will give you 20 minutes to put your gas back to 19 cents or there will be war.' I request the public's confidence in an institution that was born in our city and the profits from which remain in Lima and do not go to the enrichment of men of other communities".

"Who shall dictate the selling price of U. S. motor gasoline?" was next asked in the announcement of the meeting in black type. Then:

"Heaven forbid that I or any other legitimate business man should allow another individual company or corporation to come to Lima from another city and dictate the prices at which our merchandise should be sold.

"Attend the free lecture at Memorial Hall.

"Learn the inside of the gasoline situation—vital facts exposed."

Mayor Earl C. Rohn of Lima introduced Mr. Ebner, speaker of the evening, by saying he understood conditions about gasoline marketing were going to be exposed which he had not known had existed in Lima. He left the meeting, though, without waiting to find out what they were.

Ebner harangued the crowd for about 45 minutes, starting off by criticizing the city officials for not putting in air lines at fire stations and convenient places for motorists to get water for radiators so that motorists would not have to go to the oil company stations for air and water service.

"We used to have public watering troughs for horses, why not public places now where motorists can get water?" he asked. He charged, among other things, that oil companies allowed their wells to flow only through ¾-inch openings so that the supply of crude would be affected.

HE SHOWED pay checks of workers in industrial plants of as low as $25 for two weeks work, he claimed, and asked if men earning this amount of money should be forced to pay 19 or 20 cents for gasoline. When someone in the audience interrupted to say that men not earning more than that should not drive cars, Ebner said that he was paying for the hall, but he would engage in a debate if anyone wanted to take issue with him.

Last winter Ebner cut the price of coal in his own coal business and the Board of Trade in Lima got other coal dealers to meet with him and show him by his own figures he was selling coal at a loss.

In other advertising Ebner said, "Our sole idea in the price cut of gasoline is to give the public a motor fuel of the same standard specifications as that sold at any station in Lima, at a price that is fair to the consumer and with a legitimate margin of profit for us."

"NO DOUBT we will be severely criticized by some of our competitors who might be anxious to maintain a considerably higher price than that quoted by us. This, we feel, should reflect with no discredit to our organization."

Again, with regard to the quality of his gasoline Ebner said, in another ad: "Do not let anybody tell you that our prices mean lower quality. Find out for yourself how much better our products are at their lower prices. No gasoline or oil can be better for the average motor than what we sell."

In another ad he said: "Our stations will save patrons thousands of dollars and will give them better gasoline and oil because of our method of sales from tank cars. Find out yourself how much better our products are at their lower prices."

Here is a distillation test run on some of Ebner's gasoline. It is better than motor specifications, but hardly could it be considered as the equivalent, by the distillation test, the present recognized standard, of some of the high test gasolines on sale in Lima:

Gravity 59; initial boiling point 95; 5 per cent over at 123; 10 per at 144; 20 per cent at 178; 30 per cent at 212; 40 per cent at 241; 50 per cent at 268; 60 per cent at 298; 70 per cent at 328; 80 per cent at 360; 90 per cent at 394; 95 per cent at 424; end point 433, and 96 per cent recovery.

Other Lima stations have used newspaper advertising to tell of the quality of their gasoline. Kleeman's 13-cent station, described as "my own station and with no connection with any company", said, "I do not guarantee this gas to be the best gas in town, but I guarantee it to be as good as any cheap gasoline sold in Lima."

THIS is the second article NATIONAL PETROLEUM NEWS has carried on the low price, bulk gasoline stations selling direct from railroad storage. The first appeared in its July 7th issue. Other articles will follow. If readers will tell the Editorial Department of NATIONAL PETROLEUM NEWS of operation of these stations in their marketing territories, its staff will attempt to study and write of such instances.

55 Indicted in Julian Case

LOS ANGELES, July 8.—Eight men appeared in court June 25 to make bonds in indictments returned against them by the grand jury recently in connection with the Julian Petroleum Corp. affairs in which various infractions of the law are charged. The grand jury returned a total of 55 indictments, but names were withheld pending arrests.

President of A. N. G. M. Names 14 Committees

TULSA, July 9.—H. A. Trower, newly elected president of the Association of Natural Gasoline Manufacturers, has announced the following appointments to standing committees of the association for the coming year.

Executive committee: S. C. Carney, Roxana Petroleum Corp., D. E. Buchanan, Chestnut & Smith Corp., E. L. Peck, Empire Gasoline Co., Emby Kaye, Skelly Oil Co., A. J. Schlosser, Barnsdall Oil Co., M E. Mockley, Amerada Petroleum Corp., F. L. Chase, Lone Star Gas Co.

Meters and Regulators committee; E. A. Clark, Oklahoma Natural Gas Corp., R. I. Short, Prairie Oil & Gas Co., E. L. Stauffacher, Empire Gasoline Co., D. E. Williams, Marland Refining Co., Don Sillers, Lone Star Gas Co., T. A. Hall, Tidal Refining Co., Morris Plank, Roxana Petroleum Corp., R. A. Rawlings, Bureau of Mines.

Plant Operators' Meetings committee: E. R. Lederer, Texas Pacific Coal & Oil Co., O. H. Schoenwald, L. H. Wentz-Oil Division, F. G. Yonkers, Chestnut & Smith Corp., W. A. Melton, Shaffer Oil & Refining Co., S. C. Carney, Roxana Petroleum Corp.

Technical committee: G. G. Oberfell, Phillips Petroleum Co., C. R. Barton, Tidal Refining Co., Emby Kaye, Skelly Oil Co., A. J. Schlosser, Barnsdall Oil Co., A. M. Ballard, Sun Oil Co., S. C. Carney, Roxana Petroleum Corp., W. R. Lentz, Chestnut & Smith Corp.

Tank Car committee: C. C. Meadows, Tidal Refining Co., C. H. McBirney, Transcontinental Oil Co., S. J. Frazier, Prairie Oil & Gas Co., Walter Grubb, Barnsdall Refining Co., L. A. Coberg, Shaffer Oil & Refining Co., J. C. Carrothers, Chestnut & Smith Corp., A. C. Holmes, Empire Gasoline Co., F. W. McGrath, Skelly Oil Co., Fred Isaminger, Roxana Petroleum Corp.

Membership committee: E. L. Peck, Empire Gasoline Co., D. E. Buchanan, Chestnut & Smith Corp., E. R. Lederer, Texas Pacific Coal & Oil Co., S. C. Carney, Roxana Petroleum Corp., J. E. Hare, California Gasoline Co., E. Arthur Durham, Wiser Oil Co.

Traffic committee: F. E. Burke, Chestnut & Smith Corp., C. R. Musgrave, Phillips Petroleum Co., A. F. Winn, Skelly Oil Co., A. C. Holmes, Empire Gasoline Co., W. W. Klingensmith, Transcontinental Oil Co., C. F. Dowd, Tidal Refining Company., A. H. Evans, Akin Gaso. Co., C. H. Campbell, Lone Star Gas Co., S. B. Crooks, Empire Gasoline Co., H. C. Mulroy, Marland Refining Co., R. E. Stewart, Barnsdall Refining Co.

Specifications committee: A. F. Wood, Chestnut & Smith Corp., George P. Bunn, Phillips Petroleum Co., E. R. Lederer, Texas Pacific Coal & Oil Co., S. B. Crooks, Empire Gasoline Co., F. C. Hall, The Henderson Co., Roscoe Howard, Marland Refining Co., R. D. Webb, Carbide & Carbon Chemicals Corp.

Gas Testing committee: George P. Bunn, Phillips Petroleum Co., A. J. Schlosser, Barnsdall Oil Co., J. H. Boyle, Chestnut & Smith Corp., O. S. Ambrose, Tidal Refining Co., R. I. Short, Prairie Oil & Gas Co., E. C. LeFevre, Empire Gasoline Co., W. G. Watkins, Skelly Oil Co., P. M. Childers, Marland Refining Co., Harry Mentzell, Amerada Petroleum Corp., E. F. Schmidt, Lone Star Gas Co., B. L. Maulsby, Oklahoma Natural Gas Corp.

Finance committee: A. M. Ballard, Sun Oil Co., D. E. Buchanan, Chestnut & Smith Corp., B. A. Whitney, Transcontinental Oil Co.

Legal committee: W. C. Franklin, Tidal Refining Co., R. H. Hudson, Phillips Petroleum Co., Paul D. Griffith, Lone Star Gas Co., W. P. Z. German, Skelly Oil Co., L. B. Jackson, Oklahoma Gasoline Plants, Inc.

Gas Control committee: J. H. Boyle, Chestnut & Smith Corp., O. S. Ambrose, Tidal Refining Co., George P. Bunn, Phillips Petroleum Co., S. J. Frazier, Prairie Oil & Gas Co., E. C. LeFevre, Empire Gasoline Co., J. W. Cowles, Roxana Petroleum Corp., Donald W. Stewart, Union Gas Corp., John E. Jones, Marland Refining Co.

Sales Managers' committee: A. F. Wood, Chestnut & Smith Corp., R. N. Cline, Prairie Oil & Gas Co., F. D. Bostaph, Texas Pacific Coal & Oil Co., S. B. Crooks, Empire Gasoline Co., J. F. Nagle, Skelly Oil Co., C. C. Peppers, Peppers Gasoline Co., M. E. Foster, Phillips Petroleum Co., John E. Jones, Marland Refining Co., F. C. Hall, The Henderson Co., O. H. Schoenwald, L. H. Wentz-Oil Division.

Outage committee: Emby Kaye, Skelly Oil Co., E. R. Lederer, Texas, Pacific Coal & Oil Co., M. E. Foster, Phillips Petroleum Co., F. E. Burke, Chestnut & Smith Corp., C. F. Dowd, Tidal Refining Co., C. H. McBirney, Empire Gasoline Co., O. S. Ambrose, Tidal Refining Co.

Eastern Jobbers Meet In Philadelphia July 27

CLEVELAND, July 11.—The July meeting of the Independent petroleum Marketers of the Middle Atlantic States will be held at the Green Valley Country Club in Philadelphia, Wednesday, July 27.

The association membership covers Pennsylvania, New Jersey, Delaware, Maryland and the District of Columbia, and all dealers in those states are invited to the meeting.

The program calls for a get-together meeting in the morning and includes a round of golf. The afternoon will be devoted to meetings for discussion of the various problems confronting the jobbers and others interested in the petroleum industry and for the transaction of business. A dinner will be held in the evening and the principal speaker will be Eugene V. Alessandroni, the assistant district attorney of Philadelphia.

The committee arranging the details of the Philadelphia meeting comprises Jack Shlifer, Stanley W. Rusk, M. H. Levinson and F. H. Tripp, and the meeting will be presided over by the president, R. C. Paul of Harrisburg.

Index to Coming Meetings

Michigan Independent Oil Men's Association, Mackinac Island, Mich., July 14, 15.

Oil Tercentenary Celebration, Seneca Oil Spring, near Cuba, N. Y., July 23.

South Dakota Independent Oil Jobbers Association, Lake Madison, S. D., July 26, 27.

Symposium between Industrial & Petroleum Division and Automotive Engineers of the American Chemical Society, on motor fuels, Detroit, Mich., Sept. 6.

National Petroleum Association, Hotel Traymore, Atlantic City, N. J., Sept. 20, 21, 22.

Ohio Petroleum Marketers Association, Miami Hotel, Dayton, O., Sept. 22, 23.

Fourth International Petroleum Exposition and Congress, Tulsa, Sept. 24 to Oct. 1.

Petroleum Section, National Safety Council, Hotel Stevens, Chicago, Sept. 27 to 30.

Big Four State Jobbers, Kansas City, Mo., Oct. 4, 5, 6.

Petroleum Division, A. I. M. E., Texas Hotel, Fort Worth, Tex., Oct. 19, 20.

American Oil Men's Association, West Baden Springs Hotel, West Baden, Ind., Nov. 2, 3, 4.

American Petroleum Institute, Hotel Stevens, Chicago, Dec. 6, 7, 8.

Carbide-Phillips Suit Unlikely To Be Decided Before Winter

CLEVELAND, July 11

THE suit brought by the Carbide & Carbon Chemicals Corp. against the Phillips Petroleum Co., charging infringement of the de Brey and Thompson patents through the use by Phillips of a process for stabilizing natural gasoline, probably will not be decided before late next winter. Decision in the suit brought by the Carbide interests against The Texas Co. may be decided at any time.

The suit against The Texas Co. was tried in federal court in Houston. That against Phillips was tried before Judge Hugh M. Morris in Wilmington, Del. Arguments are to be made in the Phillips case in October.

The opening of the trial of the Phillips suit was reported on page 23 of the June 8 issue of NATIONAL PETROLEUM NEWS. Dr. Warren K. Lewis, head of the department of chemical engineering of the Massachusetts Institute of Technology, and a renowned consulting chemical engineer, was the chief witness for the defense. His testimony, which included tracing the history of the art of rectification and its application to various phases of industry, was outlined in the story above mentioned.

Following the testimony of Dr. Lewis, H. B. Bernard, vice president of the Sinclair Refining Co. in charge of natural gasoline plants, took the stand to testify that his company had produced gasoline of 87 gravity or better prior to the date of application for the Thompson patent. Mr. Lewis, superintendent of refineries of the Atlantic Refining Co. testified that under his direction, the Frasch rectifying process was used to strip the light ends out of kerosene back in 1896.

Richard Alden of the Phillips Petroleum Co. took the stand to testify that he had produced by weathering a gasoline having the same characteristics as the product covered in one of the Thompson patents. Several chemists were put on by the defense to testify as to analyses they had made on the products made by Alden and products made from the rectifying tower of Phillips at Homer, La., which was built directly upon the specifications of the Blau patent.

In rebuttal, the plaintiff put on its chief chemist, G. O. Curme, to cast some reflection on the method of analysis used and testified to by the defendant's witnesses. The plaintiff, apparently to support its position that Thompson exercised real inventive ability, brought out that George A. Burrell, in 1915, had disclosed present available methods of analysis whereby natural gas or natural gasoline can be fractionated into its components. It was attempted to show that, on the basis of these disclosures, anyone could have used this method but the fact that nobody but Thompson did it, showed him to be a real inventor.

Dr. A. B. Lamb, head of the department of chemistry at Harvard University, was called by the plaintiff to throw doubt on the applicability of the Frasch fractionating column to the natural gasoline industry. He said that Thompson's contribution to the art consisted in the fact that not only did he know the old art of rectification but he appreciated its applicability to natural gasoline and because he had made a careful study of natural gasoline, particularly through his analytical methods, he was able to practice the art of rectification very intelligently in the natural gasoline industry.

Thompson went further than de Brey, said the witness, in making a more scientific study of the subject, particularly in his suggestion of incorporating a large percentage of butane in the gasoline, said butane having previously been considered undesirable.

The defense sought to discount this testimony by putting on witnesses who stated that it had long been known in the industry that butane was a constituent of natural gasoline.

Engineering Dominates A. I. M. E. Program

TULSA, July 9.—The fall meeting of the petroleum division of the American Institute of Mining and Metallurgical Engineers will be held Oct. 19 and 20 in the Texas hotel, Fort Worth. A smoker will be held in the evening of Oct. 19 at the Forth Worth club.

Production engineering will be the primary subject of the meeting, John M. Lovejoy, chairman of the division, said. In working out the program for this meeting, Joseph B. Umpleby, Oklahoma City, vice chairman for production engineering, considered it especially desirable to offer as complete a discussion as possible of the subject of air-gas lift, its theory and practice, and its relationship to gas-oil ratios. The entire first day will be devoted to sessions on this subject. One session of the second day will be devoted to the use of electricity in oil-field operations and the second session to the handling of congealing oils and paraffin. In addition to this program there will be one or more sessions on petroleum engineering research.

During one session a brief review with forecasts of the production situation will be presented. The program follows:

FIRST SESSION
Air-Gas Lift

A. "Principles Underlying the Air-Gas Lift," J. O. Lewis.
B. "Effect of Gas Lift on Physical Properties of Oil," speaker to be arranged.
C. "Handling Recirculated Gas," R. D. Gibbs.
D. "Mechanical Installations for Air-Gas Lift."
1 Texas Other than the Gulf Coast, E. O. Bennett.
2 Gulf Coast, L. L. Brundred.
3 Oklahoma and Kansas Other than Seminole, R. W. Bond.
5 California Practice, H. C. Miller.

SECOND SESSION
Air-Gas Lift and Gas-Oil Ratios

A. "Air-Gas Lift Practice in Seminole," S. F. Shaw.
B. "Air-Gas Lift Practice in California," Jones & Laughlin.
C. Summary of Existing Information on Gas-Oil Ratios," Lester C. Uren.
D. "The Relation of Air-Gas Lift to Gas-Oil Ratios and the Bearing on Ultimate Production."
1 Data from Mid-Continent, E. O. Bennett.
2 Data from California, F. W. Lake.

THIRD SESSION
The Use of Electricity in Oil Field Operations

A. "The Use Electricity in the Mid-Continent," D. L. Johnson.
B. "The Use of Electricity in California," speaker to be arranged.
C. "The Use of Electricity in Wyoming," A. W. Peake and F. O. Prior.
D. "The Relative Advantages and Cost of Electric Power in Lease Operation."
1. "Where Electric Current is Available," speaker to be arranged.
2 "Where Electric Current Must Be Generated Locally," Ward Blodget.

FOURTH SESSION
Handling Congealing Oils and Paraffin

A. "Summary of Existing Information," C. E. Reistle.
B. "Problems and Their Solution in the Appalachian Field," Frank Brewster.
C. "Problems and Their Solution in the Wyoming Field," F. E. Ward.
D. "Problems and Their Solution at Amarillo," W. V. Vietti.

California Gasoline Men Name Barton Secretary

Staff Special

LOS ANGELES, July 9.—At a meeting of the officers and members of the executive committee of the California Natural Gasoline association held recently, Paul D. Barton, former president of the association, was selected to act as secretary the coming fiscal year and he will have his office at 701 South Palm Ave., Alhambra, Cal. His telephone number is Alhambra 532.

A committee was named to consider the advisability of creating a board of directors of some 15 to be as representative as possible, and a smaller executive committee.

This committee will report at the next monthly meeting to be held on the night of the third Thursday in July.

Testing Power of State to Stop Economic Waste, Next Step in Seminole

By Lawrence E. Smith
N. P. N. STAFF WRITER

TULSA, July 9

THERE is more to the forthcoming hearing of the state corporation commission of Oklahoma on July 21 than at first meets the eye. It is proposed by Umpire Collins and a group of operators in the Seminole district's newest pool to restrict development and production first, by agreement and second by corporation commission sanction of the agreement and order applying it to non-subscribing operators.

The move will turn out to be a test of the authority the corporation commission is presumed to have under the laws of Oklahoma to interfere with oil operations on the broad ground of "economic" waste. If it issues no orders, it admits that it is without the authority. If it issues one, it is pretty certain to get into court.

The commission undisputedly has the authority to stop physical waste of oil and gas—that is out and out wastage of those resources. It has aforetime stepped in and asserted itself in this respect.

The question of physical waste is absent in this present question, except, as set forth by Mr. Collins in his petition to the commission, that storage of the high gravity oil in the Little River pool will result in heavy loss by evaporation. The major contention, however, is that unrestricted development and production of the oil in this pool will not be economic, in view of the high production in the state.

The commission has set July 21, as date for the hearing. It will be started at 10 o'clock that morning. About 65 royalty owners, all the operators who have acreage in the affected district, which covers four sections in townships 7-6 and 8-6, and the pipe line companies operating in the Seminole field have been summoned to appear.

There is one well in the field. It belongs to the Indian Territory Illuminating Oil Co. and is flowing about 13,000 barrels each day. It is the company's No. 1 House, in the northwest corner of 1-7-6, which was announced a week ago as opening a fifth Seminole pool. The umpire's plan, which was subscribed to by a majority of the operators in the four sections, provides that, when the first of the wells now drilling gets production, the I.T.I.O. shall pinch in its well to 100 barrels per day and the new well shall be operated at the same rate. This restriction is to last for 100 days after the date the first new well comes in. Other wells completed within that period are to be held to 100 barrels to the end of the 100-day period.

Subscribing operators believe this plan will be equitable. The I.T.I.O. will enjoy the advantage that goes to the discoverer during the time required to complete the offset wells and then it will go on the same basis as the offsets. Nobody will then get any more oil than anybody else while the resctriction is in effect.

Only one change has been made in the list of subscribing operators, published in the July 6 issue of NATIONAL PETROLEUM NEWS. Tne Gladys Belle Oil Co. sold its 80 acres, the east half of the southeast quarter of 35-8-6, to the Blackwell Oil & Gas Co. (E. C. Mullendore and others). Consideration was $600,000 cash and $875,000 to be paid out of one-fourth the oil. Gladys Belle was one of the signatory operators in the agreement and this contract to restrict drilling and production is binding upon the successor of any who signed, according to one of the clauses.

OKLAHOMA has rather a confused set of laws on conservation and they have not been cleared up by court interpretation or by orders of the commission. The part of the law which operators seem to be relying upon in asking the commission to issue an order is the following paragraph, in the section defining "waste."

"The term 'waste' as used herein, in addition to its ordinary meaning, shall include economic waste, underground waste, surface waste and waste incident to the production of crude oil or petroleum in excess of transportation or marketing facilities or reasonable market demands. The corporation commission shall have authority to make rules and regulations for the prevention of such wastes, and for the protection of all fresh water strata and oil and gas bearing strata encountered in any well drilled for oil."

The expression "economic waste" and "in excess of . . . . . reasonable market demands" will be important in the corporation commission's reasonings. They are correlative, so far as this situation is concerned.

There is precedent, in a remote sense, for what the commission is asked to do. Under a law enacted in 1913, natural gas production has been restricted to 25 per cent of the capacity of the wells connected to pipe line. This has been rigidly enforced all this time except in such special instances as a population suffering from shortage of gas. In cases like that special order may be obtained, under law, from the commission permitting the gas company to draw more than the 25 per cent.

TRUE, this restriction is specific in law and there is no law in the state that exactly covers what is proposed in the Seminole district. There is a law that authorizes the corporation commission to step in when crude petroleum is being sold for less than the fair market value. This section starts out bravely enough by saying:

"The taking of crude oil or petroleum from any oil-bearing sand or sands in the state of Oklahoma at a time when there is not a market demand therefor at the well at a price equivalent to the actual value of such crude oil or petroleum is hereby prohibited. . . ." Then it wanders off into the realm of price fixing. No attempt has ever been made to invoke this law and doubtless none ever will be, for lawyers generally agree that it would not stand the test of the courts.

This hearing on the 21st is clearly to be a test of the police powers of a state to restrict exploitation of its natural resources on the ground it is uneconomic to produce. It is new and novel and will make history—that is if the commission issues the requested order, for it is almost certain to get into the courts. It is not believed that any operator will attack the order if issued, but some royalty owner is almost certain to do so. Some lawyers contend that there is an implied obligation in the lease contract to produce the oil once it is found. If the royalty owners would all see that it is to their advantage to withhold production until there is a higher market, there would be no trouble, but many of them want to get some money as they go along rather than to wait until the time when they might get more.

Hence it is that court action on any order to restrict production that the commission may issue probably

will be started by a royalty owner. The commission, as noted, has summoned about 65 of them to appear and that is a big gang to pacify.

Predictions on what the commission may do are idle, but this writer does predict that the commission will take the bit between its teeth and order curtailment of development and of production in the Little River, or 7-6 pool. It will be guided partly by the fact that a majority of the operators have asked for such restriction and partly by the fact that the state, looking at it over a long period, has something at stake. For the state's revenues are made up largely from the 3 per cent gross production tax it loses, relatively, although not actually at this time, by the low market. The huge production is keeping up the state's income, but at the same time is shortening the period in which the state's oil resources will yield a revenue.

R. Alfred Moore Joins Crystal's Staff

Staff Special

TULSA, July 9.—Announcement was made recently of the resignation of R. Alfred Moore, chief lubrication engineer for the Skelly Oil Co., to accept a position as assistant to Vice President F. W. Burford of the Crystal Oil Refining Corp. of Shreveport. Mr. Moore will assume his new duties in July, and will make his home in Shreveport.

Mr. Moore has had a wide range of experience in his work as lubrication engineer. He entered the petroleum industry in 1902 as a roustabout in the California oil fields, became a driller and later entered Stanford University. After leaving school he was with the National Refining Co. for three years in the sales department, then entered and graduated from Battle's Institute of Philadelphia, having specialized in lubricating engineering. He then went to South America where he handled lubricating engineering problems for various American companies.

In 1915 Mr. Moore returned to America and accepted a position with Todd & Co., engineers, of Shanghai, China, as superintendent of lubrication. While in China he was called into government service to build a famine relief road into the interior of China, at the completion of which he joined the foreign staff of the Texas Co. as chief lubrication engineer. He returned to America in 1923 to become affiliated with the Skelly organization.

R. E. Bishop will continue as manager of tank car sales, while W. I. Williams Jr. will be manager of the retail department. Mr. Moore will take over many of the present duties of marketing handled by Mr. Burford.

R. ALFRED MOORE

The Crystal Oil Refining Corp. within the past year has added two Jenkins cracking units to its equipment, and has obtained the exclusive franchise for distribution of Tagolene motor oils, manufactured by the Skelly Oil Co., in Louisiana, Arkansas and Mississippi.

Referendum Considered On Michigan Tax

GRAND RAPIDS, Mich., July 9.—The city council of Detroit and the Detroit Automobile club are considering circulation of petitions for a referendum on the 3-cent gasoline tax law which will go into effect Sept. 6. The present tax is 2 cents a gallon.

Doubt has been expressed that a referendum could be held because the statute was passed as an emergency measure and therefore not subject to a popular vote. Referendums on gasoline tax laws have failed in every state except Massachusetts.

Should the Detroit proponents of a referendum be successful the vote would not be held on the measure until November, 1928.

A. A. Vickers Buys Stations

DENVER, Colo.—Four modern and attractive service stations in Denver have been acquired by the A. A. Vickers Petroleum Co. during the past 60 days, giving the company 10 stations here, according to A. A. Vickers, president.

A bulk plant and service station have also been acquired recently at Fort Collins, Colo., and a bulk plant and two stations at Fort Lupton, Colo.

A.N.G.M. Budget for Research Approved

TULSA, July 9.—The board of directors of the Association of Natural Gasoline Manufacturers approved tentative plans for its research and educational campaign for the coming year at a meeting held here on July 5. A budget of expenditures for the year was approved also and methods of raising the money outlined. S. C. Carney of the Roxana Petroleum Corp., vice president of the association, presided in the absence of H. A. Trower, president.

Research work will be carried on at the University of Michigan without interruption under the direction of Dr. G. G. Brown, professor of chemical engineering, with the aid of three fellows maintained by the association. Total estimated expenses of the work will approximate $26,000 of which $5,000 already is in the treasury remaining from last year. The remainder will be raised through donations of equipment manufacturers and gasoline manufacturers. Gasoline companies will be asked to contribute on the basis of 1¼ cents for each gallon of daily net production, just half the amount asked last year.

Early work of the research department will consist of tests to determine the actual tendency of various types of motor fuels to cause carburetor trouble at atmospheric pressure. At the annual convention two months ago Dr. Brown mentioned the fact that some fuels appeared to cause trouble through gasification in the carburetor.

Following the study of gassing in the carburetor of motor cars under various operating conditions, it is the plan of the association to undertake an investigation of the best fuels for use at high altitudes for airplane use and in motor cars used in mountainous country. For this work a special altitude chamber will be constructed at the university where conditions at high altitudes and low temperatures can be duplicated by mechanical means.

Oil Man Addresses Librarians

NEW YORK, July 8.—The nineteenth annual conference of the Special Libraries Association, which comprises groups of librarians from financial, industrial, technical, advertising, legal and other special types of libraries, was held the week of June 20 at Toronto, Canada.

D. F. Brown, librarian of the Standard Oil Co. of New Jersey, outlined the activities of the oil group in developing a central index of all information in print about the oil industry.

The theme of the convention was "Contacts with Information Sources—How to Make and Use Them."

West Texas Free From Distress Oil Sales in Tank Car Lots

By Paul Wagner
N. P. N. STAFF WRITER

HOUSTON, July 11

IMPENDING increase in west Texas oil production, resulting from development in the Yates ranch field, Pecos county, will not be attended by underselling of the crude market in tank car shipments; nor will it bring about erection of local skimming plant refineries in the Permian salt basin producing territory west and northwest of San Angelo.

Freight rates to normal markets for gasoline would be prohibitive and the region itself cannot absorb more motor fuel than is already being turned out by existing plants at McCamey, San Angelo, Colorado City and El Paso.

Crude shipped in tank cars from the territory to other refineries than those mentioned would be, generally, unprofitable to handle in skimming plant operations, for several reasons. Over and above the freight rate problem, which would prevent any large shipments to north Texas or Oklahoma-Kansas plants, there would have to be considered the high cost of operating on the crude in skimming plant practice; the necessity for treating and retreating products to make them marketable; and the general lack of equipment in use for handling this raw material advantageously.

West Texas crude involves even greater refinery problems, except with regard to wax content, than raw material obtained in the Panhandle. Reports from Amarillo indicate Panhandle crude may be purchased f. o. b. tank cars, in some instances, at 95 cents a barrel, which is the posted market at the well of the major purchasing interests.

No such underselling has made its appearance in the west Texas territory, however; nor is it likely, because demand is lacking under the conditions mentioned, and because most of the crude is controlled by the stronger companies, such as Southern Crude, Humble, Gulf, Simms, Atlantic, Pure, Marland, McMan, California, Mid-Kansas and others of similar operating magnitude.

Only the larger plants in north Texas and the Mid-Continent generally are equipped for the heavy acid treating and steam still distillation that west Texas sulphur crude requires. For that reason, most of the west Texas oil will be handled across the state to seaboard, there to be put through refineries of the larger interests or moved in coastwise tanker shipments to Atlantic coast plants of similar magnitude.

As previously pointed out in these columns, plants originally built to operate on Mexican import crude will handle this raw material advantageously. In the case of companies that have never operated on Mexican crude, their finances will permit research experimentation and the re-equipping of plants for handling of the west Texas oil.

The west Texas territory will not support any large refining capacity and virtually no new plants may be expected to be built in the region, except under conditions peculiar to the operating company such as influenced the Humble Oil & Refining Co. to build a 10,000 barrel fuel oil refinery at McCamey last spring.

Humble had a five-year fuel contract with the Southern Pacific railroad, covering millions of barrels to be delivered in tank cars at Alpine, about 100 miles southwest of McCamey. It, therefore, built a plant for topping off the lighter fractions (which include about 20 per cent gasoline), the residue oil being applied on the fuel contracts. The Humble sells distillate in the territory for use in gas engines and has been trying to work up a local market for gasoline, besides supplying motor fuel for its own west Texas organization.

WILLIAM B. HASSETT and associates, of Tulsa, recently took over a small existing refinery at San Angelo, which supplies west Texas trade territory; the Colorado-Texas Refining Co., owned jointly by the Anderson-Pritchard interests of Oklahoma City and the Standard Oil Co. of California, through a subsidiary, may find it advantageous to use some of this crude to augment a supply now obtained in the Westbrook field, Mitchell county; and the Rio Grande Refining Co. (Lockhart Bros. of El Paso) has operated part of the time on Pyote crude, produced in Winkler county and shipped over the Texas & Pacific railroad by the Southern Crude Oil Purchasing Co.

Southern Crude, which is credited with plans for building a trunk pipeline from McCamey to the Gulf coast at Ingleside, on Corpus Christi bay, has just purchased the Elliott Jones refinery at San Antonio from the Frost National Bank, owners since receivership. Plans of Southern Crude have not been announced, but the Company probably does not intend to operate the plant, as indicated by the fact that tankage on the ground is being cut down and moved away. The consideration paid for the plant was only $27,000, which amounted to a salvage valuation.

PREPARATIONS being made to go ahead with Yates pool development are indicated by recent pipeline announcements, including the finishing of facilities through which Illinois Pipeline Co., subsidiary of Ohio Oil, can transport 30,000 barrels daily to McCamey; the laying of an 8-inch line by the Humble from its Kemper tank farm in Reagan county, via the Powell field in northern Crockett county to the Yates area; and announcement of the previously reported 10-inch line the Illinois will build down the Pecos river valley to Comstrock, on the Southern Pacific, northwest of Del Rio.

Trunk line facilities out of west Texas include the Gulf's line to Ranger; the Humble's 10-inch, under construction from McCamey to Ingleside, on Corpus Christi bay; a similar line projected by Southern Crude Oil Purchasing Co.; and the Humble's 40,000 barrel system from the Big Lake territory, Reagan county, to Comyn connection with its main trunk.

Diamond Refining Merged With Penn Lubric Oil Co.

TULSA, July 9.—Distributing facilities of the Diamond Refining Co. in Missouri and Kansas were taken over by the Penn Lubric Oil Co. of Kansas City through a merger agreement on June 1. Ben E. Bush, president of the Diamond Refining Co., was made a vice president of the Penn Lubric at the time the consolidation was made.

Combined distributing facilities of the company now include 65 stations in Kansas and Missouri centering at Kansas City.

The Diamond Refining Co. has not disposed of its properties in Oklahoma. It operates three natural gasoline plants in this state.

DALLAS, July 7.—The Primrose Refining Co. plant at Wichita Falls, will be reopened within the next week. The plant has been shut down since early spring.

Exposition Committees Already Are Busy With Arrangements

TULSA, July 9

COMMITTEE work always being an important part of any large undertaking, the International Petroleum Exposition is laboring diligently through the 10 committees that have been appointed by President W. G. Skelly. Several of these have held preliminary meetings within the past week.

Hotel reservations, it was brought out at the meeting of this committee, are coming in rapidly and a considerable part of the room has been taken.

Several outstanding developments occurred during the week. One was the decision to invite all governors, attorneys general and public utilities commissioners of oil and gas producing states to attend as guests of the Exposition and Mid-Continent Oil & Gas Association.

These executives are told that the exhibits of equipment, of oil products and the scientific and technical displays will afford opportunity to see the industry in all its phases. Trips to refineries and to producing fields will be arranged during their stay.

The Mid-Continent association will hold its annual meeting and banquet the night of Sept. 30 and the state officials have been invited to attend the dinner. While the program for this meeting has not been completed, Herbert Hoover has been invited to be the principal speaker.

Invitations are being transmitted through the department of state to all foreign countries to send representatives to the Exposition.

General Manager J. Burr Gibbons has received acceptance of the invitation to President Coolidge to push the button in Washington which will formerly open the Exposition on Sept. 24. Appropriate ceremonies to accompany the president's button pushing are being arranged on the Tulsa, or receiving end of the push.

As of this date, 132 exhibitors have signed contracts for space and the list grows each day. Every class of equipment for all divisions of the industry is now represented in the roster of exhibitors.

One of the important committee meetings of the past week was that of the geological section of the scientific and technical committee. This committee is headed by Alf G. Heggem, of Tulsa. So elaborate an exhibit of the technical side of the industry is planned that it may be necessary to erect a separate building to house it.

Dr. Charles N. Gould, director of the state geological survey, is vice-chairman of the committee and under his direction the geological exhibit will be arranged. It is planned to make all scientific and technical exhibits, whether they relate to geology, chemistry, production methods or the refinery, so simple that the whole will form a great educational display to those not versed in technology.

Aviation will make its appearance for the first time at any Exposition. Invitations have been sent to oil and supply companies who are using planes to fly them to the Exposition and put them on exhibit in the space that will be provided for them. Lt. Col. John A. Paegelow, commander of U. S. Army Scott field, Belleville, Ill., will fly one of the new type army ships here to be placed on exhibition.

Work Sets Foreigners Right on Report

By Special Correspondent

WASHINGTON, July 11.—The Federal Oil Conservation Board's advice to American oil men to obtain control of production in foreign countries, contained in its report dated Sept. 6, 1926, has got into South American politics. Secretary Work has taken note of the fact by saying officially as chairman of the board.

"It has come to the attention of the Federal Oil Conservation Board that various interpretations are being placed upon certain phases of the board's report of Sept. 6, 1926, covering general petroleum conditions. In the board's report it was stated:

> The fields of Mexico and South America are of large yield and much promising geological oil structure is as yet undrilled. That our companies should vigorously acquire and explore such fields is of first importance, not only as a source of future supply, but a supply under control of our own citizens.

"The phrase in the board's statement, 'Under control of our own citizens,' has, it is understood, been seized as an argument in the advocacy of governmental control and operation of the petroleum industry in certain South American countries, but the proponents of such a policy have misconstrued the import of the board's statement.

"The Federal Oil Conservation Board did not contemplate nor intend that anything would be done by American companies operating abroad to monopolize or prejudice the oil production of any country. The controlling thought in the minds of the members of the board was to urge our citizens to seek production abroad in order to better adjust conditions of world supply and demand by supplying local markets of the several countries from local sources instead of drawing on the supply from the United States for that purpose, and, where petroleum can be found abroad in excess of the needs of the particular country, for our citizens to participate in its development in order that such excess as might be needed to supplement petroleum produced in the United States would be under control of our citizens. It was assumed as obvious that all the needs of the nation and of the people of any country where petroleum might be found would have first call on such supply and only the excess supply would be exported under conditions defined by the laws of the country in question.

"Under our own laws, foreign nationals now own petroleum production in the United States and share in the benefits from petroleum produced here, and it was deemed reciprocal and proper that our citizens should be advised and encouraged by the board to seek in similar manner to develop available prospective sources of petroleum supply in foreign countries—always subject to the priority needs of those countries."

McGuire Resigns Position With Galena Signal

CLEVELAND, July 7.—J. W. McGuire has resigned from the position he has held for the past two years as district sales manager in charge of tank car sales and lubricating oils in the middle west for the Galena-Signal Oil Co. of Texas. Mr. McGuire's office was in Kansas City, having been moved there from the New York sales office the first of the year. Mr. McGuire has been in the oil industry about 15 years, having spent nine years with The Texas Co. and the balance with the Galena. After a short vacation, the first in five years, he expects to again enter the industry. He has been a director in the American Oil Men's Association.

P & R Replaces Dubbs Units

Staff Special

TULSA, July 9.—The Producers and Refiners Corp. is installing six new Dubbs cracking units at its refinery at Parco, Wyo., to replace the battery which was destroyed by an explosion last spring. The new units will be of the latest design with 10 by 40 foot reaction chambers. Four of the new units will be ready for operation in August if present construction schedules are maintained.

A.P.I. Refinery and Production Technical Divisions Recommended in Report

By Paul Truesdell

N. P. N. STAFF WRITER

NEW YORK, July 8

IMMEDIATE formation within the American Petroleum Institute of a technical organization which shall include a division of refinery technology and a division of production engineering, with later expansion to include divisions of transportation and distribution engineering, is recommended in the report of the committee on technical relationships of the Institute, submitted July 6. The committee was appointed by President E. W. Clark at the annual meeting of the Institute in Tulsa last December.

The report also recommends the establishment by the Institute of a technical journal as "essential and of paramount importance." In this journal, according to the recommendation, "all technical papers and edited discussions accepted and authorized by divisional committees on papers should be published, together with other appropriate reports and articles including translations of important foreign papers." This journal, the report recommends, should be furnished to all A.P.I. members and should be available to non-members by subscription.

The report which the committee unanimously approved, will be acted upon by the board of directors of the A.P.I. at its next meeting which probably will be held in September.

The appointment of the committee last December grew out of the feeling by many oil companies that technical work of immediate value to the oil industry was too widely scattered through a large number of technical societies, some of which handled oil problems as a side line but most of which were doing work of more or less importance.

The existence of petroleum divisions in these various organizations made it imperative for oil companies to send their technical men to numerous meetings which might or might not have value commensurate with the time and money expended in attending them.

THIS feeling was voiced in a paper read by Frank A. Howard, head of the development department of the Standard of New Jersey, at the Tulsa meeting. The appointment of the committee followed. The members of the committee are: E. W. Isom, Sinclair Refining Co., chairman; W. L. Stewart, Jr., Union Oil Co. of California; R. A. Halloran, Standard Oil Co. of California; Robert E. Wilson, Standard Oil Co of Indiana; K. G. Mackenzie, The Texas Co.; T. G. Delbridge, Atlantic Refining Co.; E. De Golyer, Amerada Petroleum Corp; Wallace E. Pratt, Humble Oil & Refining Co.

The purpose of the committee was to consider the subjects having technological and scientific interest for the oil industry and investigate the existing facilities for handling the technical matters, presentation of papers and discussions of subjects coming under the various divisions.

The committee's report sets forth that in addition to the basic sciences of chemistry and physics, the branches in which the oil industry is chiefly interested from a technical standpoint divide themselves into five classifications as follows:

Petroleum geology.
Production engineering.
Transportation engineering.
Refinery technology.
Distribution engineering.

PETROLEUM geology, says the report, is a very definite subdivision of the broad field of petroleum technology and is now satisfactorily covered by the American Association of Petroleum Geologists. Committee D-2 of the American Society for Testing Materials is another organization that the report says is doing a satisfactory job in development of petroleum testing methods.

Production engineering, refinery technology, and transportation and distribution engineering, however, are not adequately covered by any existing agency, the committee finds. It remarks that the latter two do not seem to demand immediately, divisions to handle their technology. Demand is urgent, however, for divisions of production engineering and refinery technology, it is stated.

Production engineering is defined as embracing technical problems connected with drilling for oil and gas; well equipment, pumping methods and all handling of crude oil until it is delivered into lease tanks or gas until it is delivered into transportation lines.

Refinery technology has a wide scope and includes the problems of the natural gasoline industry. Concerning this division, the report states that it "comprises technical matters under mechanical, civil and chemical engineering, and problems of applied physics and chemistry. Included in these would be problems of distilling, fractionating, treating and cracking of petroleum and derivatives; and the adaptation of mechanical equipment such as boilers, pumps, and other machinery to meet the particular requirements of refiners. Due to the fact that the methods followed are practically the same, the recovery of gasoline by absorption and compression methods, either in refineries or in plants deriving their raw materials from oil and gas wells, would come under this subject grouping.

"It would also concern itself with corrosion, evaporation and storage problems, in which it would be associated with the divisions of production, transportation and distribution engineering. Under applied physics and chemistry would come the practical application of the principles of physics and chemistry to refinery problems."

The value of the services that have been rendered the oil industry by the various scientific and technical societies now existing is recognized in the report as follows:

"The committee does not wish to minimize the importance of the fine and valuable work done by various technical societies and scientific bodies outside the petroleum industry which have had the active co-operation of petroleum technologists. However, these bodies do not cover the field completely, though they overlap in certain parts thereof, and they do not and cannot speak nor act with authority for the petroleum industry, and it is the judgment of this committee that the industry should itself provide machinery through which its technical men can speak and act.

HOWEVER, in presenting its recommendations, the committee does not have in mind that the various technical societies will necessarily disband their petroleum divisions or cease their activities.

On the contrary, in some instances, your committee is convinced that the effective work of particular societies should be continued and supported. Included in the field of work of certain existing technical societies are problems of pure science connected with petroleum, which the petroleum industry can best leave to these societies rather than attempt to handle for itself. Certain it is that the acid test of the work of any society or any organization is whether

that work is of a constructive nature and worth its cost."

The committee report provides for the organization of technical divisions as follows:

"THE membership of each division should include such members of the A.P.I. who are actively engaged or interested in the subject to be handled by the division and who have paid dues for membership in the division as required by the board of directors of the A.P.I. The dues for each technical division should not exceed $2.50 per annum.

"The officers of each division should be a chairman and vice chairman elected by its members. Each division should have a salaried executive secretary appointed by an active executive officer of the A.P.I. Each executive secretary should also be a member of the A.P.I. administration staff.

"The chairman, vice chairman and executive secretary, together with regional group chairmen as hereinafter defined, should constitute a general committee for each division.

"Geographical sections of each division may be organized by its members subject to approval by its general committee. The elected chairman of each section should be a member of the general committee of the division.

"Provision should be made for a technical co-ordinating committee to handle jurisdictional questions, including the allocation of border line subjects in the various divisions, to arrange the outlines of the technical programs at meetings, and to arrange co-operation with other technical organizations in the presentation and discussion of technical papers.

"For each division there should be a committee of five on papers, to be composed of four of its members appointed by the chairman, and the executive secretary, which committee should pass on all papers before their presentation or publication.

"No member should be eligible for election as chairman or vice chairman of a division or any of its geographical sections unless he be actively engaged in the petroleum industry in that particular subject.

"For the preliminary organization for each division it is recommended that a nominating committee for each division be appointed to select nominees for chairman and vice chairman, and that facilities be provided for the enrollment of members of the A.P.I. as members of the respective divisions and these members should be called to meet during the next annual meeting of the A.P.I., at which meeting the report of the nominating committee should be submitted.

"After the permanent organization of each division has been first effected it should prepare rules of procedure for its own activities and for future election of its officers, which rules should be submitted to the technical co-ordinating committee for approval and should be finally approved by the board of directors of the A.P.I., whereupon they should become effective."

First Gas Station Strike in History Is Compromised in Chicago

CHICAGO, July 11.

THE first concerted strike of tank wagon drivers and service station men in the history of the oil business, which was called for July 7 against the Sinclair Refining Co. in Chicago, has been settled.

Settlement was reached on July 9 by a joint conference of a committee representing the union and a committee representing the oil industry. The union is Oil Drivers and Filling Station Employees Union No. 705, headed by Patrick J. Berrell. The union got less than half of what it asked for. A contract was signed to run two years.

Tank truck drivers formerly received $175 a month, eight hours a day, six days a week, with time and a half overtime and double time on Sundays and holidays. They asked a raise of $15 a month and a week's vacation on pay. They get a raise of $7.50 a month, no vacation with pay, overtime figured on the same basis as before.

Filling station attendants formerly drew $140 a month. Their hours were the same as truck drivers' but they rarely had occasion to receive overtime. They asked a wage increase of $10 a month but finally accepted a $5 raise. Under the new arrangement also the filling station men will be required to mow grass, paint fence, and do chores around the station, when not otherwise occupied.

The oil companies were represented by T. B. Clifford, Standard Oil Co. of Indiana; W. K. Evans, Roxana Petroleum Corp.; A. H Sus, Sinclair Refining Co.; S. B. Wright, The Texas Co.; and C. S. Rosenthal, Apex Motor Fuel Co.

The strike against Sinclair was called early Friday morning, July 8, and before noon Standard Oil Co., Roxana Petroleum Corp., The Texas Co., and leading Independent companies were closing their stations as rapidly as they could. By 3 o'clock Friday afternoon there were only four or five company-owned stations open in a radius of 20 miles from the "Loop" in down town Chicago.

Fear of violence under strike conditions was the only reason given by the big companies for closing their gasoline outlets. As soon as the stations were closed the tank trucks were called off the street. They had served a great many resale dealers and in this way many garages and privately owned stations had a gasoline supply on hand sufficient to carry them over the week-end under normal conditions.

At noon Saturday only a few pumps were operating in town. The big companies had halted all car load shipments of gasoline into the city. A few Independent operators kept on doing business. They could get gasoline provided their source of supply was not one of the major companies involved in the Chicago strike. Four or five of these companies have filling stations at their bulk plants and at least two of them kept on supplying their dealers through tank wagons.

POSSIBILITY is considered remote for similar strikes in other cities for Chicago is said to have the only filling station men's union in America that is active. Tank truck drivers in other cities are organized generally with a general chauffeurs union. There is no other city where they are allied with the filling station men.

The public did not suffer from the strike except where motorists ran out of gasoline on the road. A few tourists were held over in the city for a day but that was all. Taxicab and bus companies, ice and milk companies had enough gasoline on hand in their garages to keep their vehicles operating.

She Did it With Bottles

Miss Sylvander, a stenographer in the offices of the Bartles-Maguire Oil Co., Blum building, Chicago, found her gasoline tank empty when she started to drive home Saturday noon while the station men's strike was on. All nearby stations were closed. She went back into the building, made the rounds of several oil company offices and collected an armful of 4-ounce sample bottles of gasoline. She poured this gasoline, totalling about three quarts, into the tank of her car and drove home.

MT. VERNON, N. Y.—The executive offices of Excelsior Lubricants Co. have been moved into the company's plant here, effective June 25. The company serves New York City and Westchester county.

Waited Nine Years to Drill 18,000-Barrel Well in Old Pine Island Field

By Paul Wagner
N. P. N. STAFF WRITER

SHREVEPORT, La., July 11

NINE years ago Arch Haynes drilled his first contract well in the Pine Island heavy oil territory on a 10-acre lease of the Murray Oil Co. Last Sunday, he completed for himself and associates on the same 10-acres one of the largest light oil wells ever drilled in North Louisiana and the first "gusher" to pay off from the Glenrose oolitic lime horizon of the Trinity series beds at 3685 feet.

Haynes, standing alongside the well, in the southwest of 14-21-15, was asked whether he "had a hunch or information" when he bet $40,000 in drilling costs to complete the "gusher" that is estimated good for open flow production of 18,000 barrels daily and which is actually yielding 6500 barrels through one and one-quarter inch choker.

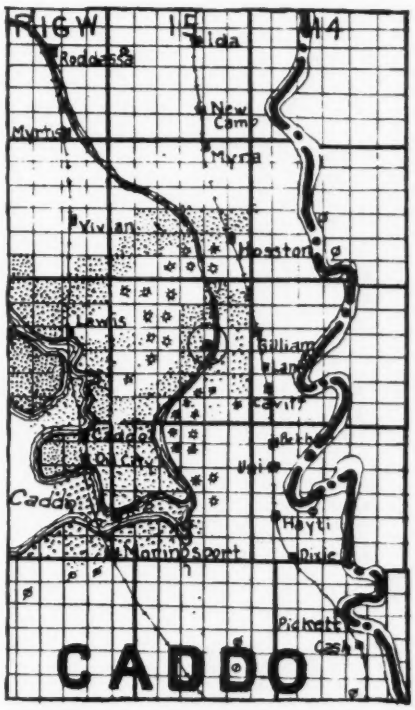
"It wasn't a hunch; I don't play 'em," Haynes said. Then he admitted that, ever since he took part in the original heavy oil development at Pine Island, he had been considering for deep possibilities the immediate territory of the Murray 10-acres.

Before original Pine Island development, Haynes was a driller of the old school. He worked for Joe McCue at Shreveport when the present assistant manager of the producing department of The Texas Co. was division general superintendent in North Louisiana. Then he took up contract drilling in the Pine Island heavy oil development that flooded the North Louisiana industry with fuel crude in 1918.

After minor successes in the Shreveport territory, Haynes extended his operations as a contractor to Oklahoma, his rotary outfits drilling many Tonkawa and Seminole deep wells. Haynes made fortunate purchases of part interest royalties in Oklahoma and, some time later, he put a part of this money to work on the Pine Island deep test next to his heart.

Haynes wouldn't admit the drilling of the Glenrose lime "gusher" on the Murray 10-acres reflected a quirk of sentiment, though perhaps it did. More probably he recognized that the gas he was certain to produce had a ready market and he could afford to indulge his desire to make a deep test on oil.

The old school driller scoffs at geology under its own name, but he never fails to pay attention to the way formations are checking—whether higher or lower—in the logs of wells on adjacent leaseholds. Thus, Haynes, who had drilled some of the nearby Glenrose lime gassers and many of the 2300-foot Pine Island wells, satisfied himself of the location he wanted to test.



Black dot in circle near center of sketch map shows approximate location of Haynes Bros. big well in Pine Island deep pay area.

GAS and some oil had been in evidence at Glenrose depths in the adjacent area since October, 1924, when the Dixie Oil Co., Inc., direct subsidiary of Standard Oil Co. of Indiana, completed its No. 43 Robertshaw, 400 feet east and 1800 feet north of the southwest corner of 13-21-15, for 45,800,000 cubic feet of wet gas daily. That well produced from 85 feet of broken lime at 3623 feet, about 500 feet above the base of the Trinity beds in the Lower Cretaceous geological section. Utilization of the expansion of the well's natural pressure through scrubber tanks installed on the lease resulted in a yield of as high as 1500 gallons of raw natural gasoline daily in its early life.

Later, the Dixie's No. 53 Robertshaw, 1390 feet east and 2405 feet north of the southwest corner of 13-21-15, made 8,000,000 cubic feet of gas and 500 barrels of oil out of a flow of 2500 barrels of fluid at 2747 feet.

Ohio Oil Co.'s No. 17 E. K. Smith, 693 feet north and 2313 feet west of the southeast corner of 9-2-25, some distance away, was the next gasser to show oil from Trinity Series beds. It made 60,000,000 cubic feet of gas at 3697 feet, Sept. 2, 1925.

THE immediate area of the Haynes-Murray well came into attention again, July 19, 1926, when the Gulf Refining Co. of Louisiana drilled its No. 12 E. Tyson test to total 3819 feet. This test, 298 feet south and 273 feet west of the center of 14-21-15, started off making 42,000,000 cubic feet of gas and about 18 barrels of oil. The oil flow was gradually increased to about 600 barrels.

When The Texas Co. drilled in its No. 5 J. F. Herndon, 2387 feet east and 627 feet north of the southwest corner of 14-21-15, March 28, 1927, the oil flow in the Gulf's Tyson well dropped to about 150 barrels daily. The Texas Co.'s well caught fire and burned several days, while making about 40,000,000 cubic feet of gas at 3590 feet. It was reported to have showed for about 500 barrels of oil daily before catching fire, but it made only salt water with the gas when controlled. Gulf's Tyson, at the crest of a hill north of the Herndon, then came back and now is making about 800 barrels of oil daily.

A number of other gassers that showed no oil were drilled elsewhere in the territory, on the Caddo Mineral Lands lease of The Texas Co., the Robertshaw property of the Dixie, the Wiley Bradford and Dillon leases of the Fortuna Oil Co. (Magnolia), and the C. W. Lane lease of the Arkansas Natural Gas Co.

As the Haynes-Murray discovery is in the heart of the old Pine Island territory, at a deeper producing level, no trading activity resulted from its completion. Properties of the Gulf, Texas and Dixie companies entirely surround it; and there is little acreage within a mile of the new well to the north, northwest, west or southwest, under control of others. Louisiana Oil Refining Corp., Shreveport, owns 75 acres about a mile northwest; Ohio Oil Co., and Atlantic Oil Producing Co., respectively, own 60 acre and 40 acre tracts approximately one mile north; Mutual Oil Co. and Fortuna Oil Co. own 40 acre and

80 acre properties ranging from a quarter to a half mile southwest and there are a few 6½ acre and 13 acre properties held by miscellaneous interests a half mile northwest.

Arch Haynes, who has two brothers associated with him, is the guiding spirit of the operations listed under the name of Haynes Brothers. They own half the working interest on the 10 acres, the remainder being divided 25 per cent between a Vivian, La., banker, and Ed McGoldrick of Sour Lake, Texas.

Another test to be drilled by them is announced as No. 1 Spell, in 15-21-15, the adjoining section to the west. Offsetting the Murray "gusher", two locations have been made by The Texas Co., for its Nos. 6 and 8 J. F. Herndon. These locations are respectively, 990 feet south and east of the northwest corner of the southwest quarter of 14-21-15 and 990 feet north and west of the southeast corner of the southwest quarter.

Other deep drilling in the general territory includes the following wells:

Dixie Oil Co., Inc.,—No. 8 Fitzsimmons, 265 feet north and 390 feet west of center of 14-21-15, waiting orders at 3710 feet.

Dixie Oil Co., Inc.,—No. 10 Slattery, 197 feet south and 2278 feet east of northwest corner of 27-21-15, drilling in red shale at 3968 feet.

Dixie Oil Co., Inc.,—A-2 Noel, 2521 feet west and 200 feet north of southeast corner of 13-21-15, in shell at 3867 feet.

Magnolia Petroleum Co.,—No. 20 Robertshaw, 990 feet east and 165 feet south of northwest corner of northeast quarter of 23-21-15, rigging up cable tools at 3722 feet.

Ohio Oil Co.,—No. 25 E. K. Smith, 338 feet north and 1226 feet west of southeast corner of 12-21-15, drilling in lime at 4100 feet.

The Texas Co.,—No. 47 Caddo Mineral Lands, 960 feet east and 800 feet south of center of 23-21-15, waiting on rig after cleaning out at 3657 feet.

BECAUSE of the high gravity of Pine Island deep pay crude, which tests 42 degrees, A. P. I., Glenrose production takes a market price of $1.40 a barrel at the well.

Pipeline facilities extend through the territory and supplies reach the field through long established bases in the Caddo district. The accompanying sketch map shows the general Caddo territory with present development a little southeast of midway between Gilliam on the east and Lewis on the west.

DALLAS, July 9.—George Dartois, formerly with the H. H. Cross Co., has been made superintendent of the Primtex Refining Co. plant at Dallas.

Officials See Holdings Of Transcontinental

TULSA, July 7.—A party of some 30 eastern oil men and bankers, most of whom are officials or are interested in the Transcontinental Oil Co., the Plymouth Oil Co. and the Big Lake Oil Co. spent a week recently visiting the properties of the companies in Oklahoma and Texas. The party was headed by M. L. Benedum of Pittsburgh.

The eastern visitors spent the first part of the week inspecting the producing properties of the companies in the Yates and Big Lake pools in west Texas. They spent Wednesday at Fort Worth inspecting the Transcontinental Oil Co.'s refinery and came to Tulsa Thursday. At Fort Worth several members of the party went over to the Shreveport district and back east that way.

The refinery at Bristow as well as the Tulsa offices of the Transcontinental were inspected here

Those in the party besides Benedum were F. P. Parriott, president of the Transcontinental; C. H. Huston, chairman of the board, Transcontinental, Nelson Phillips, chief counsel of the Transcontinental and Big Lake Oil Companies in Texas; John Ford, Tulsa, general superintendent of production for the Transcontinental; H. D. McCracken of Fort Worth, vice president, United Producers Pipe Line Company, Transcontinental subsidiary; A. B. Dally, Pittsburgh, vice president of the Transcontinental, Big Lake, Arkansas Fuel Oil and Arkansas Natural Gas companies and a director of the Plymouth.

Howard C. Ingles, New York, of the firm, Theodore Schulze & Co., investment brokers; Julian M. Gerard, chairman of the board, Central Mercantile Bank & Trust Co., N. Y.;J. C. Adams, Tulsa vice president and general counsel for Transcontinental; John C. Laing, Charleston, W. Va., director of Plymouth; H. B. Davenport, Charleston, W. Va., director of both the Big Lake and Plymouth companies; John Kirkland, Wheeling, W. Va., stockholder of the Plymouth; Fred W. Miner, Pittsbrgh, vice president Pittsburgh Oil Development Company and an official of the National Tube Company.

M. B. Bottomfield, Tulsa, vice president Transcontinental; Julian Stein, Baltimore, president of Stein Brothers & Boyce, investment bankers; C. Prevost Boyce, Baltimore, member of Stein Brothers and Boyce; C. Pitts Raleigh, Baltimore, vice president Drovers National Bank; Charles W. Hoff, Baltimore, Union Trust Company of Maryland; Ray C. Hennen, Tulsa, chief geologist of the Transcontinental; A. D. Robb, Pittsburgh, vice president Colonial Trust Company; Harry M. Blair, New York, member of the firm, Henry D. Lindsley & Co.; LeRoy Frost Jr., New York, member of the firm, B. Y. Frost & Co.; V. W. Miller, New York, vice president Central Union Trust Company; R. B. Upham, Chicago, vice president Peoples Trust and Savings Bank; James Bruce, Baltimore vice president International Acceptance Corporation of New York; Warren Gorrel, Chicago, president Gorrell & Co., bankers; C. K. Bowie, Baltimore, retired capitalist; A. C. Woodman, New York; J. G. Farquhar, Pittsburgh, vice president Plymouth Oil Company; Levi Smith, president of the Big Lake Oil Company, and A. C. Stearns, general manager of the Big Lake Oil Company.

"Loreco" Promotes Men On Operating Staff

SHREVEPORT, La., July 9.—Increased responsibilities recently vested in operating executives of the Louisiana Oil Refining Corp. have now been followed by a number of promotions in various departments of the organization.

M. J. Grogan, formerly vice president in charge of sales, who succeeds Clyde M. Bennett as head of the Shreveport offices, has now been made a director. Mr. Bennett recently became president of the Trinidad Oil Fields Operating Co., an affiliated interest, and soon will move to New York.

B. P. Crittenden, formerly manager of the refining department, has been made a vice president.

S. Barna, who entered the "Loreco" service as chief chemist in the Bossier City plant in January 1924, has been promoted from general refinery superintendent to manager, in charge of all plants. F. N. Williams becomes superintendent of the Bossier City refinery with Herbert Reed as his assistant.

Walter McCollum is now general foreman of cracking plant operations at Bossier City and G. Wilbur takes charge as general foreman of treating, finishing and shipping at Bossier City. W. P. Godfrey and J. D. Bannon are now night superintendents at Bossier City and Arthur Delaune is now general foreman at Bossier City Plant "A".

W. F. Dickerson is now acting superintendent at the Gas Center plant and W. E. Barlow acting general foreman.

A. L. Edsell was recently promoted and transferred to the Ohio division of the company at Cincinnati. F. T. Reed, formerly manager of the service department has been promoted and his place taken by S. D. Jackson, formerly purchasing agent and division sales manager. L. M. McKinney is now chief clerk in the sales department, Ohio division, and W. H. Montgomery has been brought back to Shreveport from Alexandria, La., to be division sales manager, general offices.

What Other Products Than Petroleum Can the Jobber Sell?

By V. B. Guthrie, Managing Editor

WOOSTER, O., July 8.

"I WONDER if there is any fundamental law in the universe that compels us jobbers to think about our business only in terms of the gasoline and motor oil we can sell."

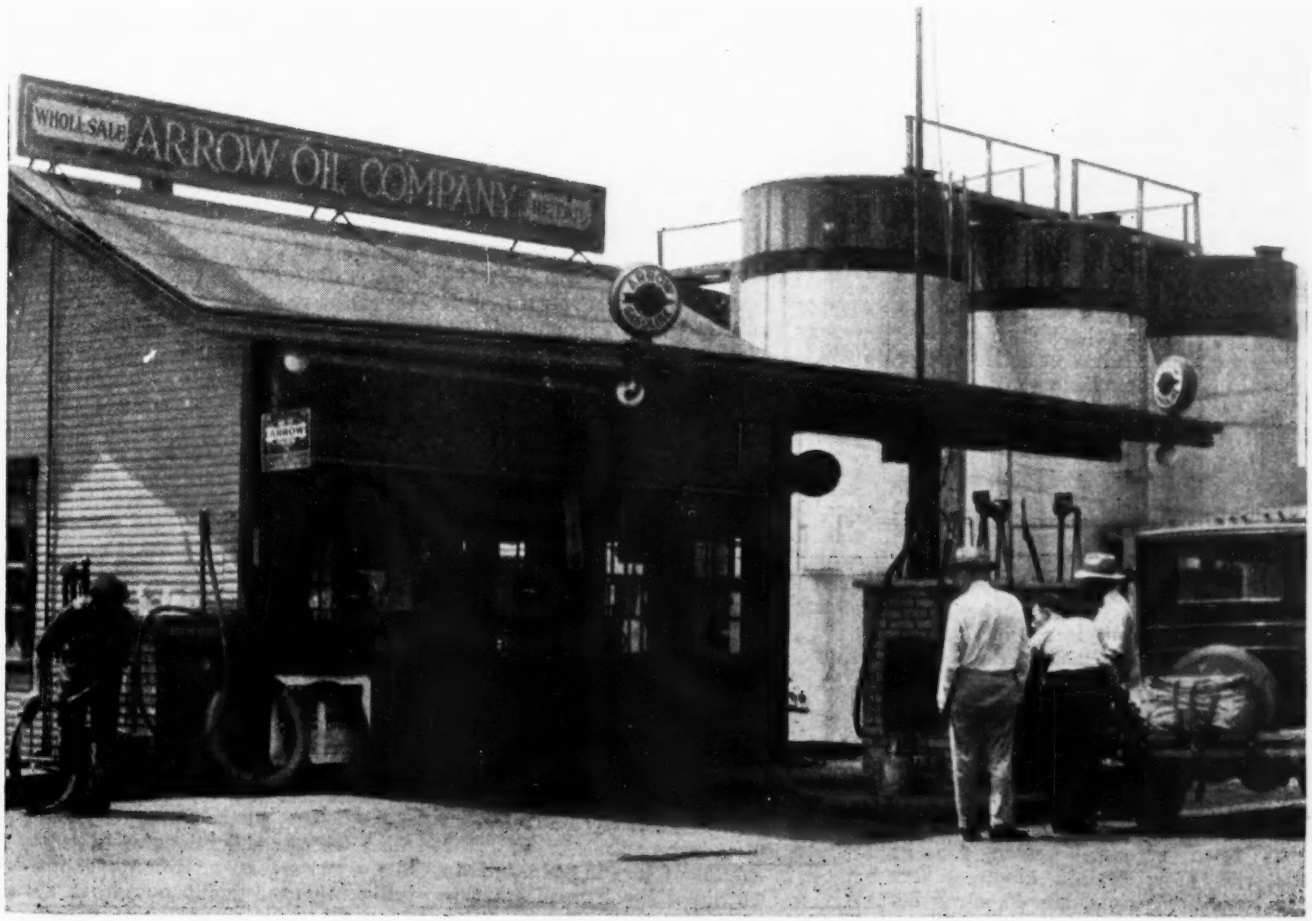
R. K. Shoolroy, head of the Arrow Oil Co., made this observation as we sat in his office at his plant at Wooster, just a hundred feet or so off a principal state highway. Vacationists and trucks and busses were on the road, rolling by like an endless belt. It was hard to keep your eyes and mind off them, and away from speculating on how much gasoline and oil they would use in a day and who would sell it to them and so on.

The view through another window in Mr. Shoolroy's office, however, was on a neighboring factory, a neat brick plant humming with mechanical and human energy. Next to it was another factory. Right back of the Arrow Oil Co.'s property were two other industrial plants. We thought of other lines of business in Wooster, a small industrial town, also site of a college, with good farming country all around it, and we started speculating on the number and volume of products of one kind or another that this community uses, which could be supplied in barrels or by tank wagon deliveries. That led to Mr. Shoolroy's observation.

"It seems to me that anything that goes into barrels or can be delivered in tank wagons, is a line of business for the oil jobber to consider, and that the handling of other lines of products which can be merchandised by about the same methods as oils are sold offers a means by which the local marketing company can meet growing competition in gasoline and motor oil," Mr. Shoolroy said.

"These other lines will not be the same in all communities, because industrial activities differ; but, whatever they are, the jobber may well consider if he can render a further service in his territory by applying his experience in handling oil products and his storage facilities for inflammable liquids to other lines.

"TO FIND out what these other lines are and develop their business is a job for the head of the local marketing company to take on himself. It cannot be done by salesmen nor carried on by agents, except as it is once well established. For this same reason that it is a specialized business by communities, it is an opportunity for the local marketing company which is not generally open to the big com-



The start of a busy morning at the Arrow Oil Co.'s gasoline station at its bulk plant at Wooster, Ohio. This station is in a factory district with no store nearby, so the station carries tobacco and candy for the factory hands. This trade comes at hours when the station is not busy selling gasoline and oil

panies, represented by agents with limited authority and initiative."

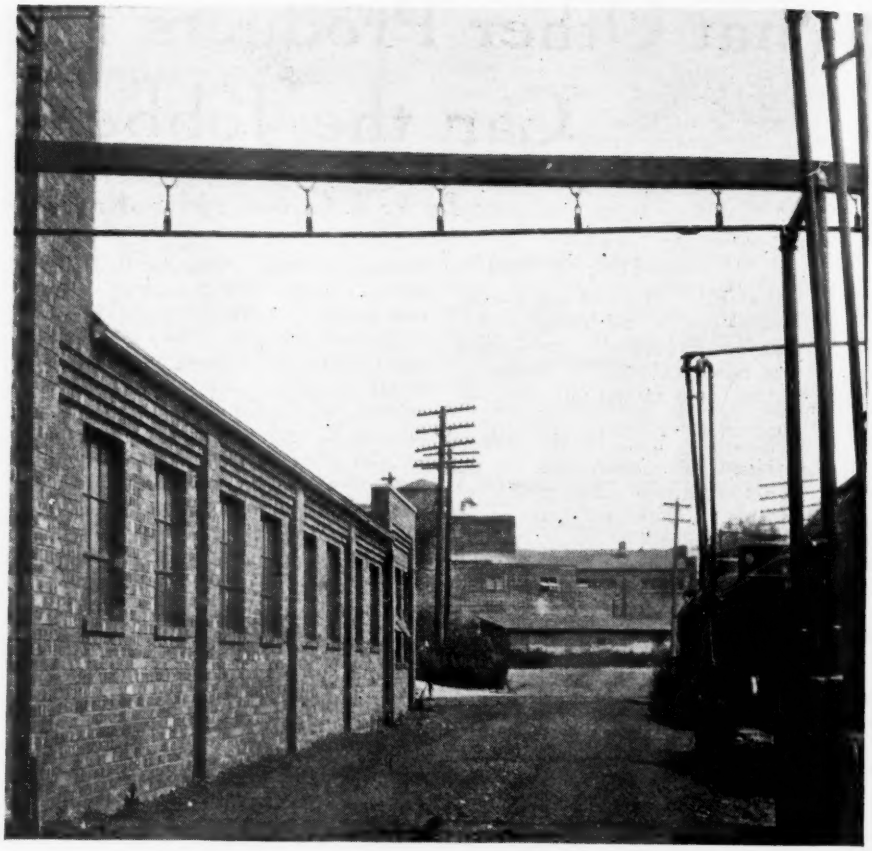
The Arrow Oil Co. has already carried out to some extent this doctrine which its head expounded. Rubber manufacturing companies in his territory use certain grades of benzol as rubber solvent. Mr. Shoolroy looked these plants over carefully, talked with their heads, and found that some, by the nature of their business, were glad to turn this work of buying benzol, seeing that it was up to specifications and carrying it in storage, over to a company which had facilities and experience for this kind of work. So he got this business, and on a profitable basis.

THEN Mr. Shoolroy looked around further and found that more and more dry cleaning was being done in the community and that many of the places that used a cleaning fluid didn't handle enough to purchase direct from a source of supply in quantities, and that they didn't care to keep this product in any quantity at their own places of business. So he arranged to carry dry cleaning naphtha, and the convenience to his customers of a real service on this product allows him to handle it at a profit.

The next avenue Mr. Shoolroy considered was naval stores. He talked with the hardware dealers and the painters and found that they were not individually doing a volume of business that warranted their buying linseed oil and turpentine in tank car lots. They also didn't care to bother with storing any great quantity, and were glad to have adequate supplies carried at the Arrow's plant, where these were just two more inflammable liquids to store.

Right now Shoolroy is turning his attention to the farms in his territory. He knows these farmers use packaged or barreled chemicals for spraying their fruit trees, and for an insectifuge. He has tank wagons that visit those same farms with kerosene, gasoline and lubricating oils. He is going to find out how farmers purchase these products, how much they use, what they cost the farmer, and ascertain if he can handle these at any greater convenience to the farming trade and, at the same time, give him a profit.

He believes there is possibly an opportunity for the local marketer in the industrial lubrication business also, due to the fact that particular lines of manufacturing tend to group themselves together. For example, if there is one successful knitting mill in a town, local capital is likely to back another, and perhaps even more until that town becomes known for its factories of a certain kind. Where this condition exists, Mr. Shoolroy believes, the local marketer could well study the lubrication problems of those plants, even to getting the services of a good engineer to help to determine what particular grades of lubricant would be most satisfactory. He would be competing for this business, of course, with the salesmen and advertising of the national marketing companies; but he might be able to show these factories where he could give them a suitable oil for their particular needs, even to having it especially compounded if necessary, and store and handle it at greater convenience to them than where they were buying through outside salesmen.

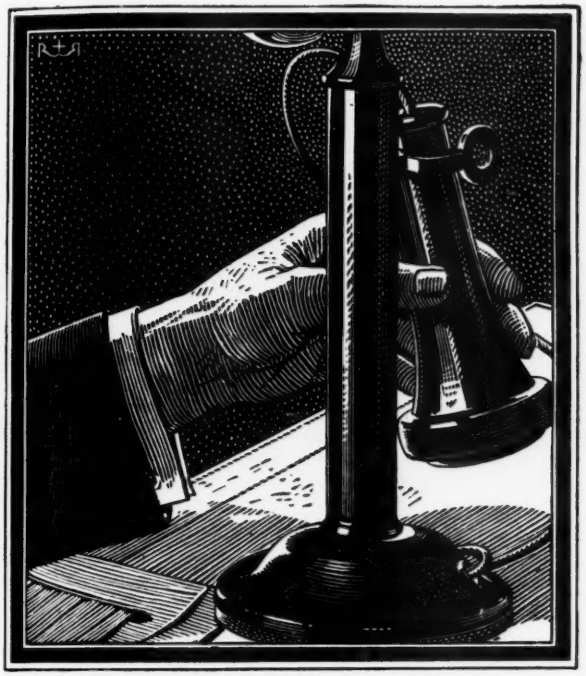


Barrel loading device installed by the Arrow Oil Co. to facilitate loading packaged goods into cars. The carrier runs from the company's barrel room to a point where the barrels can be conveniently swung into railroad cars

ONE policy the Arrow Oil Co. does follow, is to concentrate the attention of its entire staff on products that do allow a profit in handling. For example, the Arrow company has experienced the increasing competition of the national marketing companies to sell their brands of lubricating oils, and also an increase in the number of companies that advertise and sell nationally branded oils. The Arrow Oil Co. sells only Arrow brand lubricants. There is a continual pressure on dealers who have been sold his oils in the first place, from salesmen from the national companies, to induce these dealers to take on other lines in place of or in addition to Arrow oils. Mr. Shoolroy meets this by making it sufficiently remunerative to his tank wagon drivers to keep talking and pushing his lubricants. He allows them no commission on gasoline they put out on the theory that little salesmanship is required here. He allows them 3 cents a gallon on lubricating oils sold to regular customers, and 5 cents a gallon on sales to new customers. This amount of commission is enough to make them work hard to sell new accounts and also to keep their tanks full after the account is once sold.

Until recently Mr. Shoolroy was the only man in the company who ranked as a salesman only. The rest of the selling was taken care of through commissions to agents and tank wagon drivers. He recently put on a salesman, as he did not have time himself to develop new accounts which did not logically fall to the tank wagon men. Of course he has good men for tank truck drivers. He operates 10 trucks out of his three bulk stations at Wooster, Loudenville and Creston. He pays them higher than average wages and commissions in addition on everything they sell except gasoline, and except on all deliveries to his own service stations. He will not take men who have worked for other oil companies. He gives the men good sales instructions, acquainting them with specifications of lubricating oils, so they can answer questions intelligently and point out what specifications mean in the nature of an oil in use. He gets his men together once every two weeks to take up points that bother them and bolster

Bought 500,000 *feet of lumber* . . . 1000 miles away



A MEMPHIS LUMBER firm's representative called at the office of a buyer a thousand miles away. He found him in the market for a half-million feet of lumber. He wired this news to his company. They called him at once by long distance telephone, catching him before he left the prospective buyer's office. . . When the receivers were hung up, the deal had been closed.

MANY OTHER LUMBER COMPANIES have like experiences. For example, Atlanta: " . . . Looking over a list of our stock yesterday, saw an item we thought one of our customers might want. Decided to call by Long Distance. Expense, possibly $3.50. Developed an order for 5 cars of lumber."

From Nashville: " . . . Last week we secured a 5-car order by telephone from one of our Louisville customers . . . this week 3 cars to a Knoxville connection." Jackson, Mississippi: " . . . A few weeks ago we sold a quarter-million feet of lumber over the telephone to Toronto, Canada." Mobile: " . . . We do over 80% of our lumber buying over the long distance phone." Memphis: " . . . For quick action, for learning the last-minute status on any out-of-town situation, and in effecting satisfactory adjustments, nothing we know of will take the place of long distance service."

For good results, quick, try long distance calls. They'll usually cost less than you think. . . . . *Number, please?*

BELL LONG DISTANCE SERVICE

them on their general sales work. He leaves his men on their territories and makes them feel that what the territory does is to their credit almost entirely. They are allowed commissions of ½ cent a gallon on kerosene and ½ cent a pound on grease.

His truck tanks are of 600 gallons capacity with three compartments, side racks and barrel racks. A full load amounts to about 750 gallons. His trucks average 60 miles a day, and he says, under the stimulus of the commission plan, the trucks are out early and the drivers are willing to put in long days.

This same principle of allowing a man compensation in relation to the amount of business he builds is followed at most of his service stations. The Arrow company operates only three stations itself, and six are owned but leased to operators. In leasing stations the company figures on a rental that allows it 6 per cent return on the investment in the station property. It makes a price on its products handled that allows the company a profit and also the operator a good profit if he will work. The company puts up a few signs for him. It does not do any large amount of advertising.

The station operator can put in what side lines he finds profitable, provided they do not detract from his efforts to push oil products. One of his stations carries candies, tobacco and soft drinks, as well as automobile supplies. This station is in a factory district with no stores convenient. The station man found the factory workers wanted tobacco and candies, so he put them in. He takes in from $10 to $12 a day from this trade, which makes it worth while to carry, particularly as this trade comes around noon and at times when the gasoline and oil business is slack.

S. O. Louisiana Employes Have Annual Picnic

NEW ORLEANS, July 8.—The Standard Goodfellowship Club composed of employees of the Standard Oil Co. of Louisiana, held its annual picnic for New Orleans employees of the company and their families at Bay St. Louis, Miss., on June 25. More than 500 persons were taken to the picnic in a special train chartered for the day.

Morning events on the program centered on the beach of St. Stanislaus college. Soon after the train arrived almost every member of the party was in a bathing suit. After the bathing review there were swimming races and diving contests for men, women and children. After the big picnic dinner there were land races and a dance until time for the special train to return to New Orleans.

Parity Remains in Rates to Texas Ports

By Special Correspondent

WASHINGTON, July 11.—The fight of Galveston and other Texas ports for export and coastwise freight rates on petroleum and its products from the Mid-Continent, north Central Texas and Arkansas refining points lower than those to New Orleans and other Louisiana ports has been brought to an end with a decision by the Interstate Commerce Commission that the present parity shall remain in effect. Two years ago that body decided that the rates to the Texas ports should be lower where the difference in distance was 100 miles or more in favor of the Texas ports.

This reversal has been made after further hearings, lasting a good part of the time since the original decision. The rate body found that the industry was opposed to a change where it showed any interest at all. Coastal refiners receiving their crude by pipe line were not interested.

"A review of these facts (adduced at the further hearings) "leads to the conviction" says the report of the commission made public Saturday "that higher rates to the Louisiana ports than to the Texas ports would do serious injury to the Independent refining industry in the Mid-Continent field."

At the same time the north central Texas refiners lost a fight they had been making, through their traffic bureau, for the privilege of blending casing-head gasoline and heavier gasoline at their plants, while the materials so blended were in transit from their points of origin to the ports. The rate regulating body could not see the justice of their plea to be allowed the privilege of blending at their interior refineries and then shipping the blended product to the ports, for export or coastwise movement at a charge no higher than that which the coastal blenders paid.

Charles Streich, Wisconsin Oil Marketer, Dies

MANITOWOC, Wis., July 11.—Charles Streich, head of the Streich Oil Co. here, died on July 3 from a paralytic stroke he suffered on July 1 while driving his car. Mr. Streich was 60 years old and had been head of the oil company since its establishment six years ago.

Having lived all his life at Manitowoc, he is well known here as well as in oil marketing circles of Wisconsin and elsewhere. He served as county treasurer for four years and registrar of deeds for three terms. He was first elected to the county board from the third ward in 1906, and his other positions followed.

The Streich company operates three service stations at Manitowoc, one at Two Rivers, and another one is being built here. Mr. Streich just before his death had acquired additional property adjoining the station now under construction here on which he planned to build a three-story garage building during this year.

Mr. Streich is survived by three sons, Roy, Ralph and Harry, who will continue to conduct the business. He is also survived by his wife and a daughter, Mrs. Bruno Delsman, of Hartland, Wis.

Funeral services were on July 6.

Two Standard Companies in Rate Battle

WASHINGTON, July 9.—The Standards of California and of Indiana are in a fight over railroad freight rates on liquid asphalt and road oil, from southern California to Kansas City and St. Louis. The Interstate Commerce Commission has intervened to the extent of suspending, for seven months, reduced rates of 55 and 60 cents to Kansas City and St. Louis which the railroads published to become effective July 1.

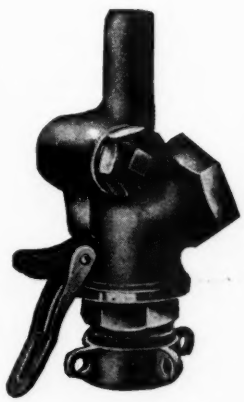
The present rate to both points is 75 cents. At the request of the Standard of California, the railroads proposed the cut so as to enable southern California residual products to get to those large centers of consumption in competition with like products from New Orleans, Casper, Whiting, Sugar Creek and Wood River.

No asphalt or road oil was moving on the 75-cent rate, hence the California Standard asked for a rate adjustment that would move such products and thereby relieve an emergency situation in California. Highly refined California products have been moving via the Panama canal.

The Standard of Indiana, Mexican Petroleum Corp. and New Orleans Refining Co., backed by the Chicago & Alton, the Illinois Central and the Burlington railroads, asserted that the rates of 55 and 60 cents were too low, would allow the dumping of cheap asphalt in the markets they had been serving, result in rate cuts to meet the one proposed by the California lines. disrupt the freight rate adjustment on asphalt from Baltimore and New Orleans and bring about a loss of revenue to the railroads without any permanent benefit to California.

They also pointed out that, as published, the proposed rates would violate the long and short haul provision of the law. The California lines answered that by saying they would make the lowered rates apply at all intermediate points now taking higher rates, and thereby surmount the long and short haul part of the law.

Since the Days of the Tank Wagon They've Been Standard Equipment



Type A Tank Truck Faucet

Type B is identical with Type A, shown above, except that Type B has a projection on the left side of the body under which the wrench may be locked for hose delivery. Sizes: Type A—1, 1¼, 1½, 2, 2½ and 3 inches. Type B—1¼, 1½, and 2 inches.

IT'S a far cry back to the days of the tank wagon. But even then Wheaton Faucets were standard equipment. Since that time, hundreds of oil companies—including almost all the well-known ones—have learned from experience that Wheaton Tank Truck Faucets *pay for themselves many times over in long, economical service.*

That's why, today, Wheaton Faucets are *standard equipment* with such a large percentage of these concerns. Take Type A as typical of Wheaton Tank Truck Faucets. For 15 years its exceeding quality has made it the premier tank faucet of America—and wherever American oil companies operate.

Like all Wheaton Products this tank faucet is made of a special-analysis brass alloy to meet the severest use. And it is *self-closing.* The operator must *hold* the valve open, for it closes the instant the wrench is released. If it is desired to fix open the valve in Type A, the special wrench, No. 2, may be used.

Or, if desired as a regular practice to *lock* the valve open for either full or half flow, as is common in hose deliveries, its twin—Type B—may be selected. They are identical except for the *projection* on the spindle housing of Type B under which the wrench may be locked.

Send today for a sample of Type A, or Type B, Tank Truck Faucet. Test it for 30 or 60 days—if it does not prove wholly satisfactory, you may return it for full credit or refund. Also, write for the Wheaton Catalog which describes and illustrates all the Wheaton Products.

A. W. WHEATON BRASS WORKS, NEWARK, N. J.

Wheaton

FAUCETS · VALVES · JOINTS · COUPLINGS · FILLERS · NOZZLES · FITTINGS

Compilation Of Mid-Continent Refinery Operations

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National Petroleum News

Mid-Continent Refinery Operations Week Ended July 8 (By Telegraph)

	Kansas	Oklahoma	North & Cent. Texas	North La.-Ark.	Total Week Ended July 8	Total Week Ended June 10
Plants Reporting	23	46	41	14	124	124
Crude Capacity (Bbls.)	106,200	165,900	144,300	53,700	470,100	470,100
Cracking Capacity	29,000	45,800	15,750	20,200	110,750	110,750
Da. Av. Crude Runs	58,197 + 5.2	89,600 — 14 9	66,668 — 10.4	38,068 — 12.9	252,533 — 9.4	278,592
Da. Av. Other Oils	3,186 — 24.5	2,539	4,078 — 13.3	1,433 — 7.4	11,236 + 8.7	9,462
GASOLINE—Gallons						
Stocks July 1	10,654,000	47,844,000	19,578,000	3,619,000	81,695,000	89,837,000
Prod. 7-1 to 7-8	8,329,000 — 3.2	13,486,000 — 12.6	8,042,000 — 1.1	3,161,000 — 15.4	33,018,000 — 8.0	35,996,000
Ship. 7-1 to 7-8	9,705,000 — 9.4	16,915,000 — 4.0	8,716,000 + 11.9	3,162,000 — 6.8	38,498,000 — 2.6	37,773,000
Stocks, July 8	9,278,000 — 12.9	44,415,000 — 7.2	18,904,000 — 3 4	3,618,000 — 00.3	76,215,000 — 6.7	88,060,000
Ratio Sales to Prod.	116.5%	125.4%	108.4%	100.03%	116.6%	104.3%
KEROSENE—Gallons						
Stocks, July 1	3,733,000	6,559,000	2,452,000	1,160,000	13,904,000	12,334,000
Prod. 7-1 to 7-8	1,728,000 + 2.0	1,869,000 — 24.7	1,130,000 — 21.3	230,000 — 30.9	4,957,000 — 16.6	6,226,000
Ship. 7-1 to 7-8	1,934,000 + 7.3	2,475,000 + 10.9	1,193,000 + 0.8	216,000 + 21.3	5,818,000 + 7.8	6,072,000
Stocks, July 8	3,527,000 — 5.5	5,953,000 — 9.2	2,389,000 — 2.6	1,174,000 + 1.2	13,043,000 — 6.2	12,488,000
Ratio Sales to Prod.	111.9%	132.4%	105.6%	93.9%	117.4%	97.5%
STOVE DISTILLATE—Gallons						
Stocks, July 1	3,898,000	1,748,000	740,000	286,000	6,652,000	5,962,000
Prod. 7-1 to 7-8	294,000 — 15.0	535,000 + 5.9	240,000 — 26.8	56,000 — 67.3	1,125,000 — 16.7	980,000
Ship. 7-1 to 7-8	90,000 + 80.0	567,000 — 15.6	168,000 — 48.3	232,000 +582.4	1,057,000 — 2.2	952,000
Stocks, July 8	4,102,000 + 5.2	1,696,000 — 1.9	812,000 + 9.7	110,000 — 61.5	6,720,000 + 1.0	5,990,000
Ratio Sales to Prod.	30.6%	106.0%	70.0%	414.3%	94.0%	97.1%
GAS OIL—Gallons						
Stocks, July 1	6,735,000	40,576,000	13,860,000	8,385,000	69,556,000	66,475,000
Prod. 7-1 to 7-8	1,853,000 + 6.7	582,000 — 75.7	1,078,000 — 59.5	1,258,000 — 6.0	4,771,000 — 37.3	7,538,000
Ship. 7-1 to 7-8	1,410,000 — 13.3	2,200,000 — 21.0	3,286,000 +105.6	1,295,000 — 23.3	8,191,000 + 6.4	5,418,000
Stocks, July 8	7,178,000 + 6.6	38,958,000 — 4.0	11,652,000 — 15.9	8,348,000 — 0.4	66,136,000 — 4.9	68,595,000
Ratio Sales to Prod.	76.1%	378.0%	304 8%	102.9%	171.7%	71.9%
FUEL OIL—Gallons						
Stocks, July 1	11,771,000	35,102,000	27,044,000	13,452,000	87,369,000	78,636,000
Prod. 7-1 to 7-8	5,495,000 — 11.2	5,756,000 + 2.2	9,014,000 — 4.4	5,933,000 — 17.0	26,198,000 — 7.7	29,360,000
Ship. 7-1 to 7-8	5,192,000 — 10.6	7,468,000 + 12.9	7,451,000 — 4.6	7,120,000 + 2.7	27,231,000 + 0.3	28,487,000
Stocks, July 8	12,074,000 + 2.6	33,390,000 — 4.9	28,607,000 + 5.8	12,265,000 — 8.8	86,336,000 — 1.2	79,50?,000
Ratio Sales to Prod.	94.5%	129.7%	82.7%	120.0%	103.9%	97.1%

Gasoline Produced by Various Methods, Week Ended July 8

	Kansas	% of Total	Oklahoma	% of Total	Texas	% of Total	Louisiana-Arkansas	% of Total	Total	% of Total
Straight Run	5,770,000	69.3	10,160,000	75.3	6,111,000	76.0	964,000	30.5	23,005,000	69.7
Cracked	1,939,000	23.3	2,321,000	17.2	1,708,000	21.2	1,894,000	59.9	7,862,000	23.8
Natural	620,000	7.4	1,005,000	7.5	223,000	2.8	303,000	9.6	2,151,000	6.5
Total	8,329,000		13,486,000		8,042,000		3,161,000		33,018,000	

+ or — columns are % change over previous week.

Large Cut Made in Mid-Continent Gasoline Stocks

Staff Special—By Telegraph
TULSA, July 12

STOCKS of gasoline at 124 Mid-Continent refineries were reduced 5,540,000 gallons in the week ended July 8, reports to NATIONAL PETROLEUM NEWS show. Stocks July 8 were down to 76,215,000 gallons, only 14 days' supply at the rate of shipments last week.

Shipments totaled 38,498,000 gallons, compared with 39,516,000 gallons in the preceding week. The small recession in shipments since the July 4 holidays has been the subject of much comment among refiners the last week. Normally gasoline buyers place heavy orders before a week-end holiday when heavy consumption is to be expected so that they will have a supply coming in to replace withdrawals. With the new shipments arriving just after the holidays

Summary for the Month

Production and shipments, all reporting refineries, for four weeks ended July 8. Change in stocks figured from June 10.

GASOLINE

	Gallons
Production	142,009,000
Shipments	153,854,000
Net change in stocks	— 11,845,000
Ratio sales to production	108.3%

KEROSENE

Production	22,712,000
Shipments	22,157,000
Net change in stocks	+ 555,000
Ratio sales to production	97.6%

STOVE DISTILLATE

Production	5,044,000
Shipments	4,314,000
Net change in stocks	+ 730,000
Ratio sales to production	85.5%

GAS OIL

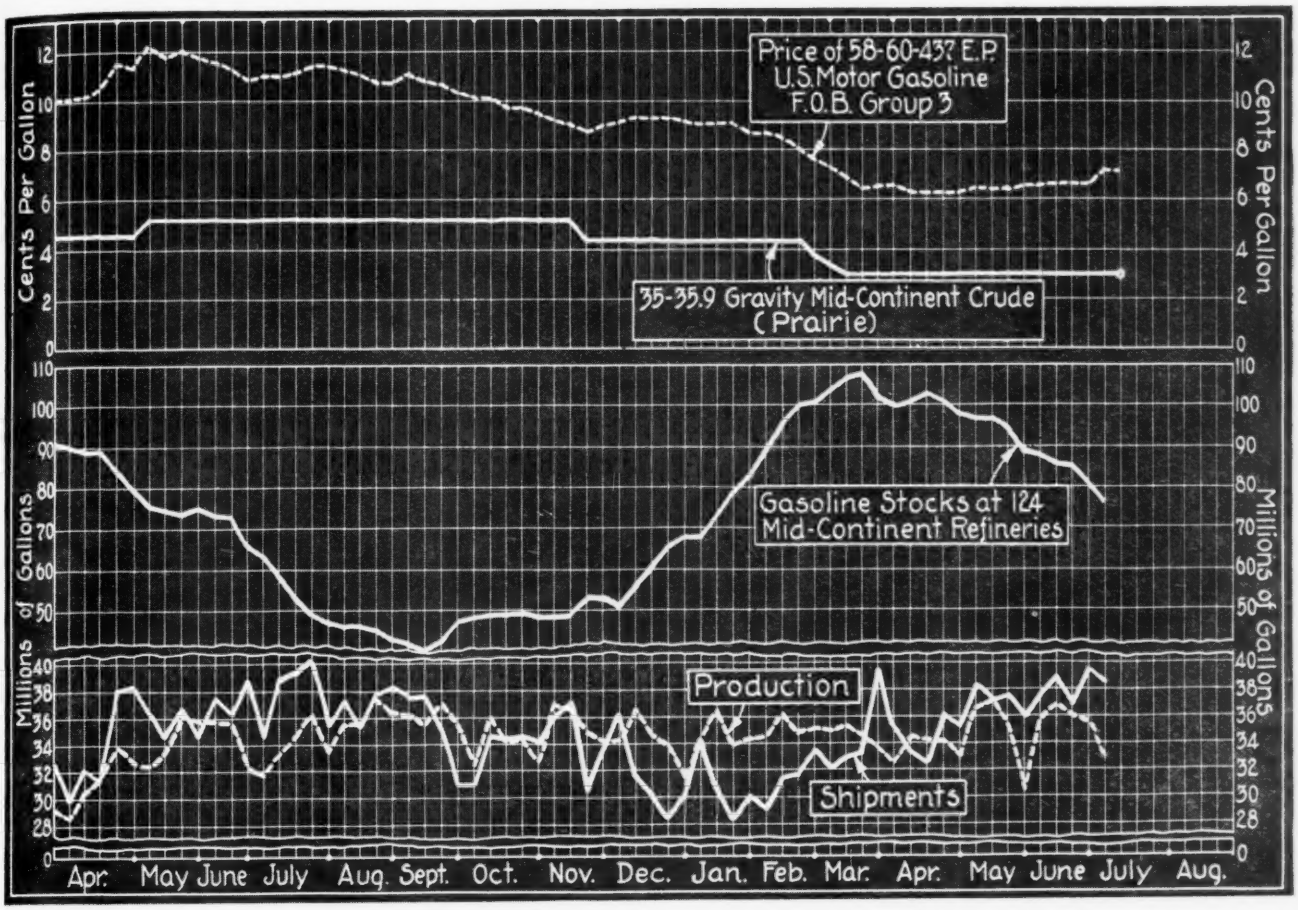
Production	25,203,000
Shipments	27,662,000
Net change in stocks	— 2,459,000
Ratio sales to production	109.8%

FUEL OIL

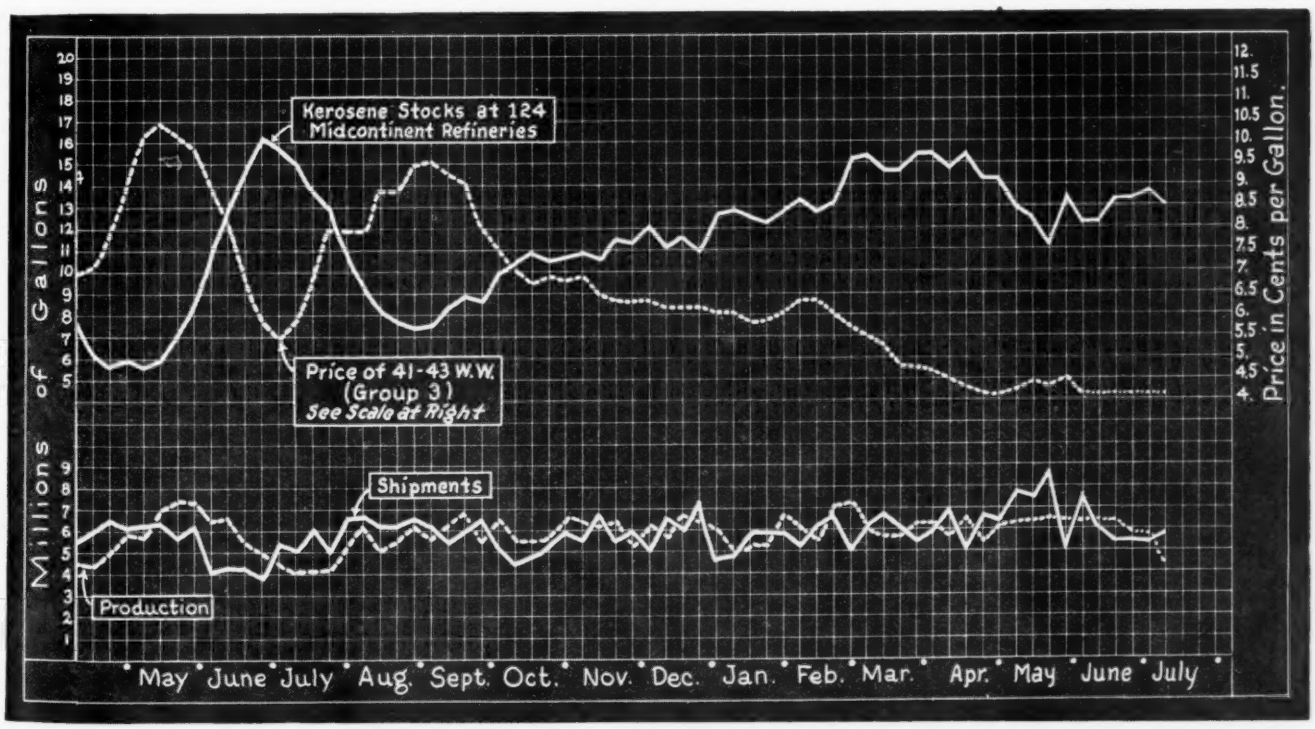
Production	117,678,000
Shipments	110,851,000
Net change in stocks	+ 6,827,000
Ratio sales to production	94.2%

Barometer of Mid-Continent Refinery Market—Week Ending July 1

Charted Course of Prices, Production, Shipments, Stocks of Principal Refined Products, Week by Week, From Reports Made by 124 Plants to National Petroleum News

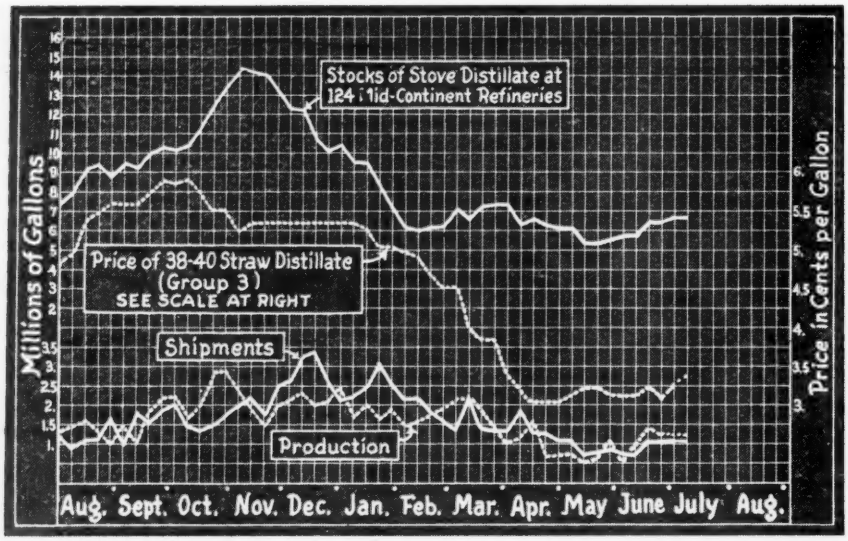

Price of 58-60-43° E.P. U.S. Motor Gasoline F.O.B. Group 3
35-35.9 Gravity Mid-Continent Crude (Prairie)
Cents Per Gallon
Gasoline Stocks at 124 Mid-Continent Refineries
Millions of Gallons
Production
Shipments
Apr. May June July Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar. Apr. May June July Aug.

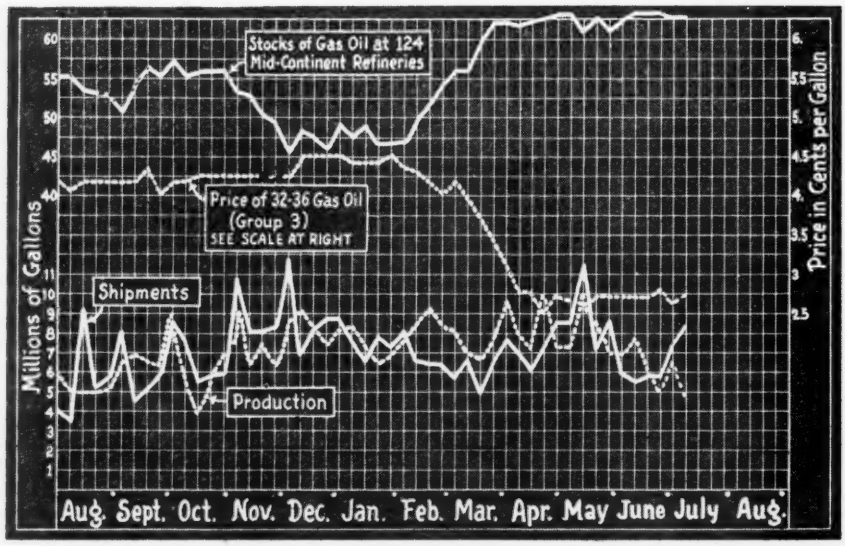
Prices shown above are extended to date shown in Refinery Market and Crude tables in Market section of this issue and stocks, shipments and Production are extended to date shown in table on opposite page.

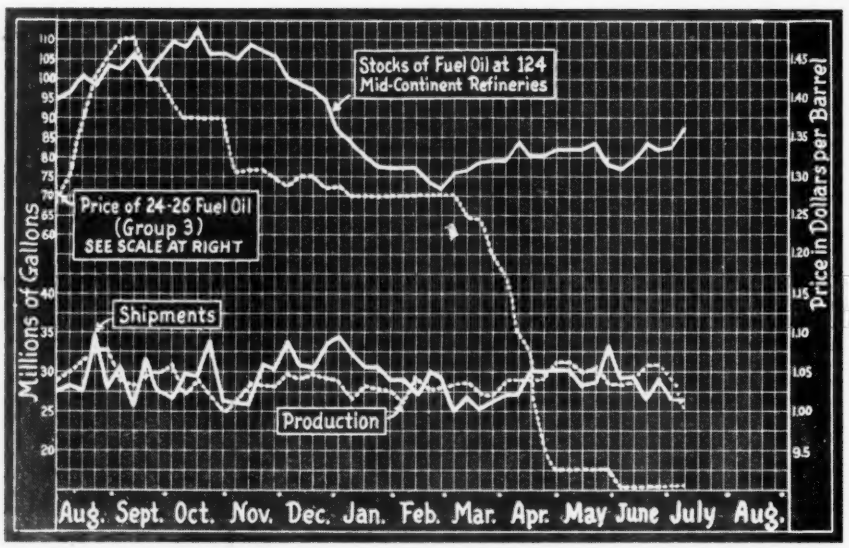

Kerosene Stocks at 124 Midcontinent Refineries
Price of 41-43 W.W. (Group 3) See Scale at Right
Shipments
Production
Millions of Gallons
Price in Cents per Gallon.
May June July Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar. Apr. May June July

Barometer of the Mid-Continent Refinery Market

Week ending July 7


Stocks of Stove Distillate at 124 Mid-Continent Refineries
Price of 38-40 Straw Distillate (Group 3) SEE SCALE AT RIGHT
Shipments
Production
Millions of Gallons
Price in Cents per Gallon
Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar. Apr. May June July Aug.


Stocks of Gas Oil at 124 Mid-Continent Refineries
Price of 32-36 Gas Oil (Group 3) SEE SCALE AT RIGHT
Shipments
Production
Millions of Gallons
Price in Cents per Gallon
Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar. Apr. May June July Aug.


Stocks of Fuel Oil at 124 Mid-Continent Refineries
Price of 24-26 Fuel Oil (Group 3) SEE SCALE AT RIGHT
Shipments
Production
Millions of Gallons
Price in Dollars per Barrel
Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar. Apr. May June July Aug.

buyers ordinarily are not active for about a week.

A year ago shipment of gasoline from the 124 plants were about 4,500,000 gallons less the week after the Fourth than in the week preceding the holiday. Every indication this year is that consumption of gasoline July 2 to 5 was larger than ever before.

Crude oil charges to stills at the 124 plants were reduced an average of 26,000 barrels a day to 252,533 barrels daily average. Stocks July 8 totaled 66,136,000 gallons, a reduction of 3,400,000 gallons.

Fuel oil demand for the week was about in line with demand in recent weeks, totaling 27,231,000 gallons. Production was down 7.7 per cent, or 2,200,000 gallons, to 26,198,000 gallons because of the smaller crude charges. This resulted in a reduction of 1,000,000 gallons in stocks to 86,336,000 gallons. Heaviest fuel oil business was reported by Oklahoma and north Louisiana and Arkansas refineries. The Kansas and Texas groups reported somewhat smaller shipments than in the preceding week. Runs for the week were 48,000 barrels daily average less than the peak or more than 300,000 barrels a day maintained June 11 to 24. Charges of rerun oil were increased only 1000 barrels to 11,236 barrels daily average.

Production of gasoline was reduced nearly 3,000,000 gallons to 33,018,000 gallons in the week as a result of the curtailment of operations. At the peak of June operations gasoline production was up to 37,000,000 gallons a week.

Shipments of kerosene jumped 7.8 per cent to 5,818,000 gallons and production was cut 16.6 per cent to 4,957,000 gallons, causing a reduction of 860,000 gallons in stocks to 13,043,000 gallons July 8. All groups except north Louisiana and Arkansas drew on kerosene inventories.

The unusually high level of summer distillate sales continued without change. Shipments totaled 1,057,000 gallons while production was 1,125,000 gallons, causing stocks to increase only 68,000 gallons to 6,720,000 gallons.

Gas oil was in better demand than in any week recently. Shipments increased 6.4 per cent to 8,191,000 gallons and production fell 37.3 per cent to 4,771,000 gallons due to increased cracking.

A.O.M.A. To Convene in November

CHICAGO, July 9.—The next convention of American Oil Men's Association will be held at West Baden Springs Hotel, West Baden, Ind., on Nov. 2, 3 and 4, with the usual educational and industrial exhibits, according to James A. Gilmore, secretary.

DEPENDABLE REFINERY PUMPS

Because of their recognized dependability, ruggedness of construction and efficiency, Byron Jackson pumps have been adopted by many refineries.

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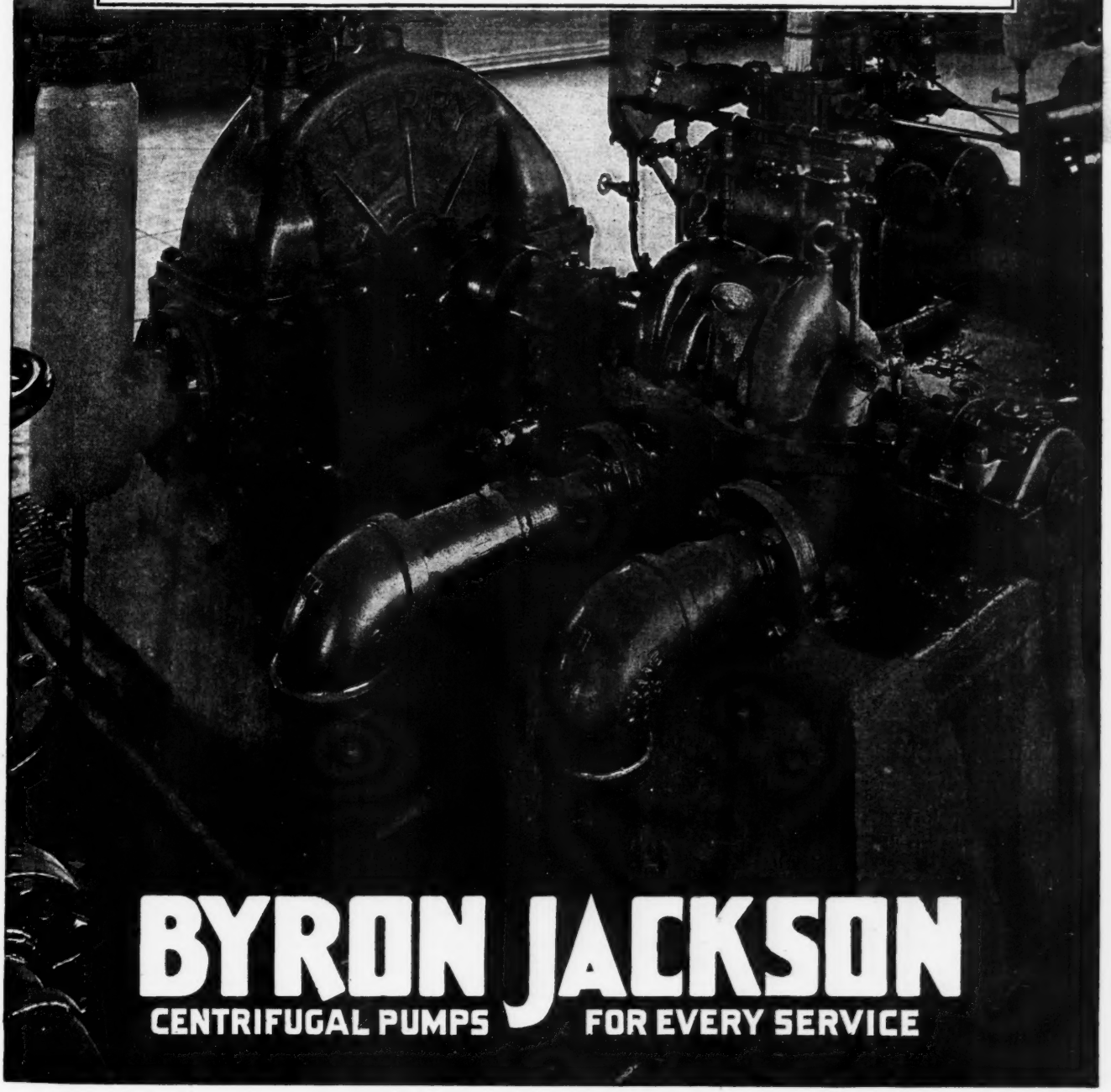
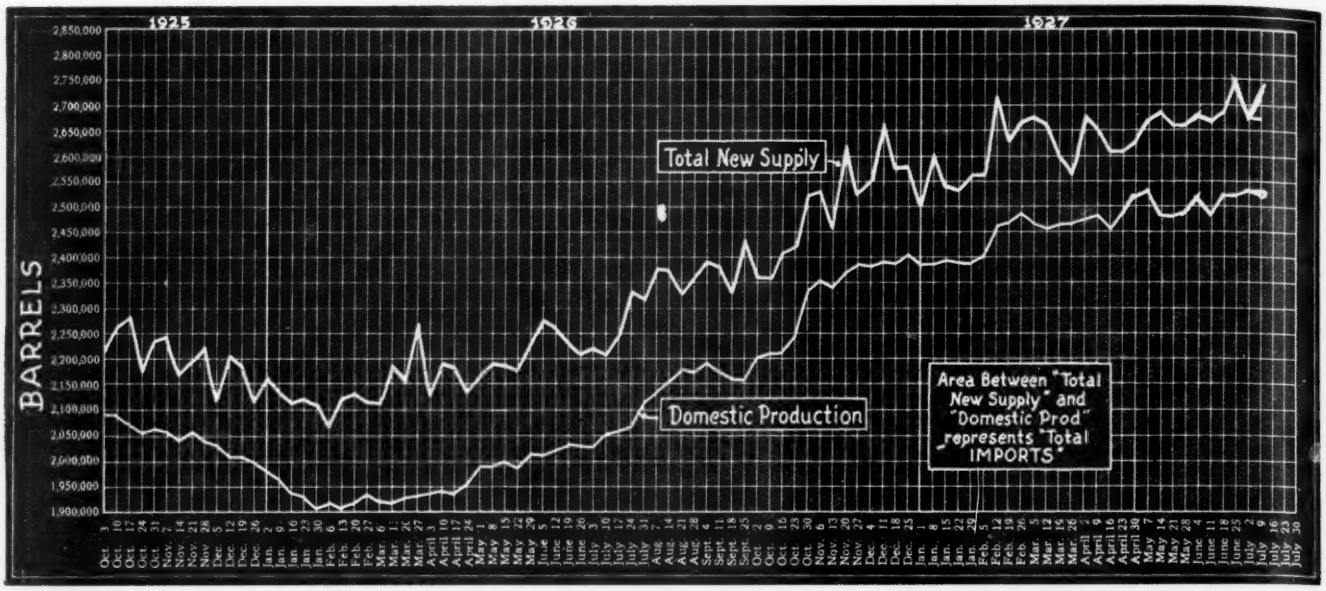


BYRON JACKSON

CENTRIFUGAL PUMPS FOR EVERY SERVICE

Daily Average Crude Oil Production and Imports



Daily average gross output of United States, by fields, for week ending with dates below as compiled by American Petroleum Institute

PRODUCTION SUMMARY

	July 9	July 2
Production east of Rockies	1,909,950	1,908,150
Increase		1,800
Total production in U. S.	2,534,950	2,535,550
Decrease		600
Crude oil imports	190,000	144,429
Increase		45,571
Total crude supply	2,724,950	2,679,979
Increase		44,971

OKLAHOMA

	July 9	July 2
North Braman	3,350	3,950
South Braman	3,250	3,300
Blackwell	3,750	3,750
Hubbard	5,650	5,900
Thomas	4,800	4,850
Tonkawa	21,100	21,850
Garber	12,850	13,500
Burbank	40,800	42,100
Osage, outside Burbank	30,800	31,200
Watchorn	1,900	1,900
Cushing	21,450	21,450
Yale Jennings	10,400	10,450
Davenport	3,050	3,100
Bristow-Slick	26,250	26,300
North Okmulgee	16,700	16,750
Lyons-Deaner	5,300	5,400
Stroud	1,050	1,050
Cromwell	12,950	13,350
Papoose	6,950	6,700
Wewoka	19,550	18,800
Seminole	330,200	323,950
Earlsboro	105,600	98,900
Duncan district	6,600	6,650
Graham	7,200	7,300
Fox	1,850	1,850
Healdton	14,900	14,850
Hewitt	9,900	9,850
Scholem Alecham	17,500	18,000
Others	66,550	65,600
Total Oklahoma	812,200	802,600
Increase		9,600

KANSAS

	July 9	July 2
Greenwood County	35,200	35,600
Florence-Covert	1,800	1,800
Peabody-Elbing	3,700	3,750
Eldorado-Towanda	13,650	13,650
Augusta-Fox-Bush	4,450	4,450
Rainbow Bend	2,350	2,350
Russell	2,800	2,850
Churchill	17,250	17,700
Others	27,500	28,400
Total, Kansas	108,700	110,550
Decrease		1,850

NORTH LOUISIANA

	July 9	July 2
Homer	5,050	5,050
Haynesville	7,550	7,750
Caddo, light	15,800	10,400
Caddo, heavy	5,400	5,800
De Soto Red River	4,100	4,050
Elm Grove	650	700
Bellevue	1,400	1,350
Cotton Valley	5,550	5,700
Urania	9,000	8,850
Pleasant Hill	600	550
Total, North Louisiana	55,100	50,200
Increase		4,900

ARKANSAS

	July 9	July 2
El Dorado	6,100	6,150
Smackover, light	11,000	11,050
Smackover, heavy	87,350	88,000
Stephens	1,350	1,400
Nevada	1,600	1,450
Lisbon	3,750	3,750
Others	100	150
Total, Arkansas	111,250	111,950
Decrease		700

TEXAS (Outside Gulf Coast)

Panhandle District

	July 9	July 2
Hutchinson County	97,350	97,500
Carson County	10,950	11,450
Gray County	9,600	10,000
Wheeler County	2,500	1,950
Others	150	150
Total Panhandle District	120,550	121,050
Decrease		500

North Texas

	July 9	July 2
Burkburnett	12,950	12,700
Electra	13,050	13,250
Iowa Park and K-M-A	2,750	2,950
Wilbarger	13,150	13,300
Archer County	29,200	29,500
Montague-Cooke	14,950	14,700
Others	800	800
Total, North Texas	86,850	87,200
Decrease		350

West Central Texas

	July 9	July 2
Stephens County	9,100	8,800
Eastland-Desdemona	8,950	8,250
Brown County	26,950	27,950
Coleman County	1,000	1,050
Callahan County	3,850	3,700
Shackelford County	8,050	9,850
Young County	9,000	8,850
Throckmorton County	2,000	2,350
Palo Pinto County	1,050	1,105
Others	1,200	1,200
Total, West Central Texas	71,150	73,150
Decrease		2,000

West Texas

	July 9	July 2
Jones County	2,000	2,000
Mitchell & Scurry Counties	3,500	3,650
Howard County	2,950	3,100
Reagan County	25,900	26,000
Crane & Upton Counties	86,750	82,350
Crockett County	1,000	1,000
Pecos County	9,000	13,850
Others	2,600	2,650
Total, West Texas	133,700	134,600
Decrease		900

East Central Texas

	July 9	July 2
Mexia	10,000	10,000
Currie	600	600
Richland	1,050	1,100
Wortham	3,000	3,050
Corsicana-Powell	16,000	16,500
Nigger Creek	3,400	3,550
Total, East Central Texas	34,050	34,800
Decrease		750

Southwest Texas

	July 9	July 2
Luling	15,300	15,600
Lytton Springs	2,000	2,000
Somerset	1,100	1,100
Laredo District	12,250	12,400
Piedras Pintas	50	50
Others	600	600
Total, Southwest Texas	31,300	31,750
Decrease		450
Total, Texas—(Outside Gulf Coast)	447,600	482,550
Decrease		4,950

GULF COAST

Coastal Texas

	July 9	July 2
West Columbia	9,200	9,000
Damon Mound	900	900
Big Creek	3,650	3,800
Boling	1,600	1,700
Blue Ridge	3,900	3,500
Pierce Junction	6,800	7,000
Humble	3,200	3,350
Goose Creek	8,750	8,650
South Liberty	3,000	3,050
Hull	16,550	16,950
Saratoga	1,150	1,150
Batson	1,250	1,250
Sour Lake	4,300	4,200
Spindletop	60,250	61,250
Orange County	4,950	4,900
Others	4,200	4,400
Total, Coastal Texas	133,650	135,050
Decrease		1,400

Coastal Louisiana

	July 9	July 2
Vinton	4,800	4,850
Lockport	7,650	7,750
Evangeline	1,000	1,000
Edgerly	950	1,200
Others	1,250	1,050
Total, Coastal Louisiana	15,650	15,850
Decrease		200
Total, Gulf Coast	149,300	150,900
Decrease		1,600

ROCKY MOUNTAIN

Wyoming

	July 9	July 2
Salt Creek	39,850	43,800
Grass Creek	2,750	2,750
Elk Basin	900	900
Big Muddy	2,550	2,700
Lost Soldier	2,900	2,950
Rock River	2,800	2,750

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Both the compressors and cylinders are stocked in local warehouses and at the shops for immediate delivery. Because of the duplex frame construction, cylinders can be easily and quickly changed in the field to meet changing conditions.

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Ingersoll-Rand engineers in your territory will gladly call on you with further information. We will gladly render any possible assistance.

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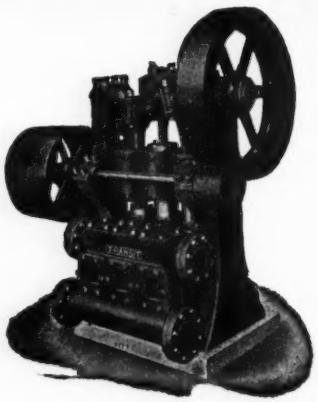

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Sectional view Fig. 368, screwed Jenkins Standard Bronze Gate Valve, with yoke, outside screw, and rising spindle.

Fig. 325 Screwed, Jenkins Standard Iron Body Gate Valve

TAKE A LOOK INSIDE THIS JENKINS GATE

A close examination of this sectional view of a Jenkins Gate Valve shows you details of its design and construction which count heavily in determining a valve's performance.

Note, for example, the double faced wedge which is tested on both sides before the valve leaves the Jenkins factory. Note the guide cast in the body. This holds the wedge in line, prevents chattering, and insures perfect seating.

Note, too, the even and ample distribution of metal throughout the valve.

Jenkins Gate Valves are furnished in bronze and iron, in standard, medium and extra heavy patterns.

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Jenkins Valves
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	July 9	July 2
Lance Creek	600	600
Teapot Dome	450	800
Others	4,800	5,050
Total, Wyoming	57,600	62,300
Decrease		4,700
Montana		
Cat Creek	2,200	2,250
Sunburst	13,000	13,000
Others	150	150
Total, Montana	15,350	15,400
Decrease		50
Colorado		
Moffat (Craig)	1,550	1,600
Fort Collins	3,550	3,200
Florence	1,150	800
Others	2,000	1,600
Total, Colorado	8,250	7,200
Increase		1,050
New Mexico		
Table Mesa	100	300
Artesia	1,700	1,700
Hogback	750	750
Rattlesnake	550	250
Total, New Mexico	3,100	3,000
Increase		100
Total, Rocky Mountain	84,300	87,900
Decrease		3,600
California		
Santa Fe Springs	41,000	41,000
Long Beach	90,000	92,000
Huntington Beach	72,500	73,500
Torrance	23,500	23,500
Dominguez	16,000	15,500
Rosecrans	9,500	9,000
Inglewood	35,000	34,000
Midway-Sunset	89,500	89,500
Ventura Avenue	37,000	37,400
Seal Beach	60,000	61,000
Others	151,000	151,000
Total, California	625,000	627,400
Decrease		2,400
Eastern		
(Including Ill., Ind., Ky., Ohio, W. Va., Pa. and N. Y.	111,500	111,500

Suit to Oust Standard Of Indiana Dropped

CHICAGO, July 11.—The ouster suit started four years ago to prevent Standard Oil Co. of Indiana from doing business in Missouri has been dismissed. Motion for dismissal was made by Attorney General North T. Gentry of Missouri on Saturday and the supreme court finally committed it to the cemetery on Monday.

Former Attorney General Jesse Barrett filed the suit in the supreme court during April term, 1924, after an alleged investigation of marketing practices of oil companies in state. His petition alleged that Standard Oil Co. limited the marketing territories of Independent refiners who were licensed to use the Burton cracking process. He exhibited a lease in evidence.

Barrett was succeeded by Robert Otto, the same year, not being able to kick up enough excitement over his suit to re-elect him. Otto was succeeded by Gentry, the incumbent. Gentry dismissed Barrett's suit and filed a new one last year including The Texas Co., White Eagle and Standard of Kentucky as defendants.

This is the last to die of a series of assaults on the oil industry by middle western attorneys general. The trouble began in Minneapolis in 1924, when national association of attorneys general at the urge of Barrett and O. L. Spillman of Nebraska started extensive litigation and legislation against the oil business.

Earlsboro Well Biggest Producer Of All Seminole Tests

By A. F. Hinton
N. P. N. STAFF WRITER

TULSA, July 9

ALTHOUGH the Little River discovery well of the Indian territory Illuminating Oil Co. is still holding its production up to 13,000 barrels a day, it did not last long as the record-breaking well of the Seminole district.

Only a day or two after deepening had jumped this well to what at the time was a new high for individual Seminole wells, another was drilled in that eclipsed it. This is running true to form for Seminole district, for no record of any kind lasts more than a day or two down there.

The new well, the principal topic of interest during the week, is the Independent Oil & Gas Co.-Margay Oil Co. No. 3 O'Dell, NEc SW SE of 4-9-5, Earlsboro field. The well is in Pottawatomie county, 330 feet west of the line between that county and Seminole. At last reports, this well was making 14,115 barrels, of which 13,417 barrels were saved. It is four feet in the Wilcox sand, topped at 4248 feet. On the same day, the I. T. I. O. Little River well made 12,928 barrels, so it must be content with second place as the district's leading producer.

The Independent-Margay well is the first completion of the crop of operations started as a result of the Amerada-Cowden well in the SEc SW of 4-9-5, and marks the beginning of another flood of big production in this immediate vicinity. The Amerada well was completed April 26, making about 6000 barrels initial, and is still flowing 3332 barrels daily. The first well to get the sand since that time required 71 days. The Amerada is completing its No. 2 Cowden, a location west of the original No. 1. This well made 2187 barrels in its first 15 hours ending this morning, in sand from 4400 to 4415 feet.

Amerada's No. 5 Cowden, a location north of the discovery and in the NEc SE SW of the section, is due in about the middle of next week, as it is now drilling in the Sylvan shale at 4140 feet. Independent and Margay are drilling three other wells on the same lease as the record-breaking well already completed. Their No. 1, an east offset to the Amerada No. 1 Cowden, is drilling at 3985 feet. In the southeast corner, No. 2 is drilling at 4059 feet. The remaining well, No. 4, in the NWc, and an offset to Amerada No. 5, is drilling at 3705 feet and has not yet standardized.

The Seminole district had a remarkable week, remaining practically unchanged at 431,000 barrels for five consecutive days, followed by increases that took it to new records. The last three days of this week it has held at about 440,000 barrels, with the highest point reached Friday—443,425 barrels. The Saturday-to-Saturday record was as follows:

Date	Production	No. Wells
July 2	431,528	566
July 3	431,367	566
July 4	431,186	567
July 5	431,133	568
July 6	431,213	572
July 7	442,047	572
July 8	443,425	575
July 9	440,228	578

Average for eight days—435,266 barrels.

At the high point of July 8, Bowlegs was making 197,239 barrels, from 146 wells; Earlsboro, 112,915 barrels from 88 wells; Seminole, 98,733, from 301 wells, and Searight 34,538 barrels from 40 wells. Today Bowlegs is off to 194,044 barrels, but Earlsboro is at a new high, with 114,879 barrels. Seminole continued to decline, producing 97,416 barrels, while Searight also dropped slightly to 33,889 barrels.

All bets are off now as to how high production from the Seminole district will go. If one ventures the assertion it will get as high as a half-million barrels daily, his hearer will state that it could go to a million without causing much surprise. The opinion is gaining ground that Bowlegs is approaching its peak, and we are willing to hazard our guess it will not greatly exceed 225,000 barrels. If it gets to that point, it will probably make it by the middle of August.

As for Earlsboro, it has already confounded so many prophets that it is impossible to say much about its future. It is certain a large flock of wells are due in there in the next two weeks and another big group will be coming in in August. Judging by recent developments, the farther away a well is drilled from what had been looked upon as the field, the bigger production it may expect, and on that basis the real Earlsboro has not even been found yet. This field, also, is the only real gusher field of the whole district, as only 17 out of its 88 wells are on lift and its flowing wells are making all except about 15,000 barrels of its production. At any rate, there is no reason to believe the Seminole district has yet reached its final and ultimate peak.

IN THE race for leadership in Seminole district production, the Indian Territory Illuminating Oil Co. finally has usurped the position so long held by the Carter Oil Co. The I. T. I. O. now has 68 wells producing 70,248 barrels a day, as compared with 66,935 barrels from 82 wells for the Carter. The latest list shows 14 companies having 10,000 barrels daily production or more, the largest number as yet so classified in this field. A newcomer in this list is the Independent Oil & Gas Co., which jumped to 20,050 barrels by virtue of the 14,000 barrel well at Earlsboro already referred to. Tidal and Atlantic, which

(*Continued on Page* 44)

Drilling Operations in Oklahoma, Kansas and Texas, Week Ended July 9, 1927

	July 9 Week Ended					July 2				
	Loc.	Rigs.	Drg.	S.D.	Total	Loc.	Rigs	Drg.	S.D.	Total
OKLAHOMA										
Burbank	1	5	6	8	20	2	2	7	8	19
Other Osages	6	5	23	6	40	4	7	21	6	38
Bristow-Cushing	3	5	55	5	68	6	5	51	6	68
North Oklahoma	3	6	59	35	103	4	9	63	33	109
South Oklahoma	8	14	142	34	198	9	11	137	35	192
Muskogee	..	5	26	16	47	..	8	24	17	49
Okmulgee-Bristow	9	45	79	17	150	7	49	68	18	142
Tonkawa	1	..	5	1	7	1	..	6	1	8
Seminole Dist.	42	61	506	41	650	35	57	500	46	638
Total Oklahoma	73	146	901	163	1,283	68	148	877	170	1,263
KANSAS	39	54	117	78	288	30	48	127	79	284
TEXAS										
Central	..	126	246	102	534	..	124	217	174	515
East	..	..	10	5	15	..	..	7	10	17
Panhandle	..	93	160	99	352	..	102	172	95	369
N. Central	..	44	98	28	170	..	44	89	30	163
West	..	84	138	65	287	..	70	144	69	283
Laredo	..	1	25	20	46	..	1	24	21	46
Total Texas	..	348	677	379	1,404	..	341	653	399	1,393
GRAND TOTAL	112	548	1,695	620	2,975	98	537	1,657	648	2,940

Reading Pipe
"Cheaper in the Long Run"

Birch Oil Company Tries Steel Pipe for a Cooling Tower for 2 months—that's all it lasted

Now They Specify READING

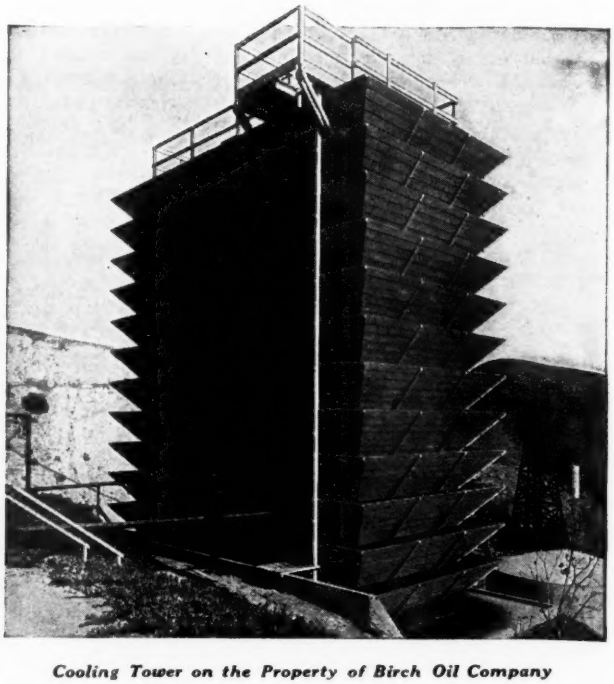
Reading Iron Company,
441 Pacific Mutual Building,
Los Angeles, California.

Gentlemen:

Replying to your inquiry as to the reason for our specifying "Reading Iron Pipe" on our order a short time ago, we beg to advise that this pipe was to be used for cooling coils in our water tower, and our previous experience demonstrated that steel pipe would not withstand certain elements in the water which caused corrosion, whereas, the iron pipe was not affected in the least.

When this cooling tower was built about a year ago, we installed second hand Reading Iron Tubing for coils, and these coils are in just as good condition today as they were when put into operation. About two or three months ago we found it necessary to install additional coils, and as we had no Reading Tubing on hand at the time, we built these of steel tubing which lasted about two months and were replaced with the Reading Iron purchased a short time ago. After about two months service the steel tubing had corroded so bad, that leaks were discovered in many places, and on examination, we found the entire steel installation completely gone.

We also find Reading Iron Tubing an eliminator of trouble in crooked holes where we have had considerable trouble with rod cut tubing. The Iron tubing apparently withstands the abrasive effect caused from continual contact with the rod couplings better than the harder steel tubing.



Cooling Tower on the Property of Birch Oil Company

Although the first cost may be slightly higher, we feel that in many instances the Reading Iron installation will prove cheaper in the long run.

Thanking you for the interest you have shown in our past relationship, and assuring you of our hearty cooperation, we are,

Yours very truly,

BIRCH OIL CO.

J. N. Royer

Superintendent

READING PIPE
GENUINE WROUGHT IRON

READING IRON COMPANY HOUSTON, TULSA, SHREVEPORT, LOS ANGELES READING, PENNSYLVANIA

Summary of Seminole District Production as of July 8, 1927, by Companies having 10,000 Barrels or more Daily Production

Company	Bowlegs Wells	Bowlegs Prod.	Earlsboro Wells	Earlsboro Prod.	Seminole Wells	Seminole Prod.	Searight Wells	Searight Prod.	Total Wells	Total Prod.	
I. T. I. O.	42	64,124	0	0	26	6,124	0	0	68	70,248	I. T. I. O.
Carter	15	22,680	1	5,210	54	26,200	12	12,845	82	66,935	Carter
Pure	13	25,484	0	0	20	7,228	2	3,220	35	35,932	Pure
Prairie	10	8,477	6	13,365	15	3,555	12	3,895	43	29,292	Prairie
Amerada	8	11,810	5	8,558	12	3,577	0	0	25	23,945	Amerada
Barnsdall	2	919	10	16,967	14	6,965	0	0	26	23,851	Barnsdall
Sinclair	10	16,820	1	0	16	3,295	2	2,785	29	22,900	Sinclair
Gypsy	8	5,109	12	9,519	29	6,239	1	485	50	21,352	Gypsy
Independent	1	1,100	3	15,735	18	3,215	0	0	22	20,050	Independent
Magnolia	0	0	7	18,012	3	1,520	0	0	10	19,532	Magnolia
Mid-Cont.	5	5,346	3	4,115	16	1,940	8	5,215	32	16,616	Mid-Cont.
Empire	4	5,532	1	8,125	5	2,780	0	0	10	16,437	Empire
Tidal	1	1,385	0	0	26	10,355	0	0	27	11,740	Tidal
Atlantic	7	9,718	0	0	6	840	0	0	13	10,558	Atlantic

Seminole District Production by Companies and Leases, July 8 and July 1, 1927

Company	Farm	S. T. R.	July 8 No. Wells	July 8 Prod.	July 1 No. Wells	July 1 Prod.
		BOWLEGS				
Amerada	Rascoe	15- 8-6	8	11,810	8	12,304
Atlantic	Fleet	23- 8-6	2	2,981	2	812
Atlantic	Grayson	13- 8-6	1	3,333	1	3,475
Atlantic	Jones	16- 8-6	2	0	2	0
Atlantic	Baker	10- 8-6	2	3,404	2	3,668
Total Atlantic			7	9,718	7	7,955
Barnsdall	McNac	28- 8-6	1	100	1	105
Barnsdall	Murrow	11- 8-6	1	819	1	265
Total Barnsdall			2	919	2	370
Carter	Bowlegs	15- 8-6	2	4,230	2	4,405
Carter	Harjoche	15- 8-6	5	5,240	4	3,690
Carter	Hilly	23- 9-6	1	2,400	1	2,090
Carter	Walker	15- 8-6	2	2,080	2	2,440
Carter	McGeisey	21- 8-6	1	0	1	0
Carter	Wise	23- 8-6	4	8,730	4	8,910
Total Carter			15	22,680	14	21,535
Empire	Lacy	14- 8-6	4	5,532	4	6,387
Gypsy	Brown	33- 8-6	1	95	1	90
Gypsy	Walker	15- 8-6	7	5,014	6	4,392
Total Gypsy			8	5,109	7	4,482
Independent	Coker	21- 8-6	1	1,100	1	1,150
I. T. I. O.	Billington	22- 8-6	2	1,948	1	2,227
I. T. I. O.	Davis	13- 8-6	3	3,287	3	3,675
I. T. I. O.	Goforth	15- 8-6	9	9,643	9	11,093
I. T. I. O.	Livingston	15- 8-6	10	12,907	8	13,311
I. T. I. O.	Walker	15- 8-6	8	9,675	8	11,418
I. T. I. O.	Wilmont	15- 8-6	4	4,562	4	5,121
I. T. I. O.	Work	24- 8-6	1	0	1	1,544
I. T. I. O.	Youngblood	24- 8-6	4	3,933	3	2,163
I. T. I. O.	House	1- 7-6	1	12,928	1	10,695
Total I. T. I. O.			42	64,124	38	61,247
McCulloch	Bowlegs	22- 8-6	1	1,082	1	1,171
Mid-Continent	Baker	10- 8-6	3	4,786	3	5,610
Mid-Continent	Hutke	24- 8-6	1	270	1	465
Mid-Continent	Bowlegs	22- 8-6	1	290	0	0
Total Mid-Continent			5	5,346	4	6,075
Minnehoma	Bowlegs	15- 8-6	4	3,750	4	3,772
Prairie	Gahagan	23- 8-6	2	2,480	2	2,575
Prairie	Harbor	10- 8-6	6	5,060	4	5,090
Prairie	Whitney	23- 8-6	2	937	2	1,200
Total Prairie			10	8,477	8	8,865
Pure	Reed	14- 8-6	13	25,484	13	26,432
Roxana	Taylor	16- 8-6	4	4,017	4	4,940
Shaffer	Lacey	14- 8-6	3	4,702	2	2,121
Sinclair	Adam	22- 8-6	1	20	1	25
Sinclair	Bowlegs	22- 8-6	1	35	1	15
Sinclair	Ellen	11- 8-6	1	1,885	1	1,995
Sinclair	Harjo	14- 8-6	3	4,595	3	2,165
Sinclair	Jones	8- 8-6	1	2,895	1	2,390
Sinclair	Taylor	10- 8-6	1	2,460	1	2,490
Sinclair	Walker	22- 8-6	2	4,930	2	4,730
Total Sinclair			10	16,820	10	14,350
Texas	Reed	14- 9-6	4	5,185	3	5,360
Tidal	Harjoche	10- 8-6	1	1,385	1	1,465
Total Bowlegs			146	197,239	132	190,272
		EARLSBORO				
Amerada	Anderson	15- 9-5	4	5,226	4	5,612
Amerada	Cowden	4- 9-5	1	3,332	1	4,212
Total Amerada			5	8,558	5	9,824
Barnsdall	C. Davis	11- 9-5	1	1,417	1	1,151
Barnsdall	M. Davis	11- 9-5	1	0	1	0
Barnsdall	Hearne	15- 9-5	1	83	0	0
Barnsdall	Savolka	15- 9-5	1	3,609	1	3,101
Barnsdall	Gibson	9- 9-5	2	4,913	1	2,856
Barnsdall	Smith	15- 9-5	1	168	1	349
Barnsdall	Peter	10- 9-5	2	3,170	2	2,370
Barnsdall	Watsutke	12- 9-5	1	3,606	1	4,370
Total Barnsdall			10	16,967	8	14,197
Carter	Payne	12- 9-5	1	5,210	1	6,700
Continental	Hollins	12- 9-5	1	4,435	0	0
Crosbie	Bryant	9- 9-5	1	2,330	1	2,670
Empire	Edmundson	3- 9-5	1	8,125	1	9,317
Gypsy	Bora	16- 9-5	1	0	1	0
Gypsy	Earl	16- 9-5	1	0	1	0
Gypsy	McFarland	29- 9-5	2	270	2	55
Gypsy	Peter	10- 9-5	2	655	2	933
Gypsy	State	16- 9-5	4	3,067	4	4,708
Gypsy	Noble	12- 9-5	1	5,512	1	5,915
Gypsy	Strain	17- 9-5	1	15	0	0
Total Gypsy			12	9,519	11	11,671
Independent	Knappen	8- 9-5	1	1,494	1	1,703
Independent	O'Dell	4- 9-5	1	13,417	0	0
Independent	Sullivan	10- 9-5	1	824	1	1,198
Total Independent			3	15,735	2	2,901
Interocean	Payne	12- 9-5	1	488	1	504
Magnolia	Bryant	9- 9-5	2	4,410	2	4,679
Magnolia	Holmsley	11- 9-5	1	4,559	1	4,896
Magnolia	Lena	10- 9-5	1	1,550	1	2,515
Magnolia	Simpson	10- 9-5	1	3,419	1	3,677
Magnolia	Sparks	11- 9-5	2	4,074	2	5,143
Total Magnolia			7	18,012	7	16,231
Mid-Continent	McCumber	9- 9-5	3	4,115	2	3,765
Phillips	Graham	9- 9-5	4	2,787	4	3,020
Philmack	Dobbs	9- 8-5	2	90	2	75
Prairie	Baker	24- 9-5	1	50	1	50
Prairie	Davis	13- 9-5	2	1,840	1	1,460
Prairie	Stidham	11- 9-5	3	11,475	3	12,985
Total Prairie			6	13,365	5	14,495
Sinclair	Foreman	18- 9-5	1	0	1	0
Shallow Sand			29	3,180	31	4,150
Total Earlsboro			88	112,915	83	104,199
		SEMINOLE				
Amerada	Fixico	23- 9-6	4	1,645	4	1,622
Amerada	Killing	23- 9-6	4	544	4	571
Amerada	Rentie	23- 9-6	4	1,388	4	1,343
Total Amerada			12	3,577	12	3,536
Atlantic	N. Cudjo	26- 9-6	4	840	4	785
Atlantic	J. Cudjo	36- 9-6	2	0	2	0
Total Atlantic			6	840	6	785
Barnsdall	Carter	24- 9-6	9	4,220	9	3,953
Barnsdall	Henry	14- 9-6	1	70	1	75
Barnsdall	Jones	34- 9-6	4	1,675	4	1,895
Total Barnsdall			14	5,965	14	5,923
Carter	B. Carter	24- 9-6	2	240	2	240
Carter	J. Carter	24- 9-6	3	70	4	75
Carter	F. Carter	24- 9-6	3	410	3	240
Carter	R. Cudjo	35- 9-6	4	1,580	4	1,750
Carter	W. Cudjo	34- 9-6	2	325	1	325
Carter	Gilliland	27- 9-6	1	485	1	470
Carter	Grisso	23- 9-6	7	720	8	1,390
Carter	Knapp	13- 9-6	3	1,300	3	1,312
Carter	Killings	14&23-9-6	14	14,535	14	14,220
Carter	Lukes	27- 9-6	6	2,195	6	3,300
Carter	Simpson	25- 9-6	2	325	2	200
Carter	Strother	34- 9-6	3	4,015	3	4,285
Carter	Vierson	23- 9-6	4	0	4	905
Total Carter			54	26,200	55	28,712
Empire	Gross	25- 9-6	2	2,000	2	2,082
Empire	Wilson	34- 9-6	3	780	3	830
Total Empire			5	2,780	5	2,912
Gypsy	Butler	35- 9-6	3	742	3	1,035
Gypsy	Carter	24- 9-6	8	1,364	8	657
Gypsy	Cudjo	34- 9-6	3	1,619	3	1,817
Gypsy	Fixico	26- 9-6	5	177	5	165
Gypsy	Harjo	25- 9-6	3	1,555	3	1,320
Gypsy	Wolf	26- 9-6	7	782	7	915
Total Gypsy			29	6,239	29	5,913
Independent	P. Fixico	23- 9-6	4	375	4	290
Independent	T. Fixico	26- 9-6	8	1,177	8	955
Independent	Harjo	25- 9-6	2	775	2	40
Indep. et al.	Jones	26- 9-6	4	888	4	924
Total Independent			18	3,215	18	2,209
I. T. I. O.	Bowlegs	26- 9-6	10	3,912	10	3,545
I. T. I. O.	Goodwin	23- 9-6	4	454	4	438
I. T. I. O.	James	24- 9-6	4	1,069	4	1,008
I. T. I. O.	Harjo	23- 9-6	4	640	4	602
I. T. I. O.	Mercy	13- 9-6	1	0	1	0
I. T. I. O.	Reed	24- 9-6	3	49	3	43
Total I. T. I. O.			26	6,124	26	5,636
Kingwood	Johnson	22- 9-6	5	2,033	5	2,208
Magnolia	Franks	25- 9-6	3	1,520	3	1,304

(*Continued on Page 44*)

Seminole District Production by Companies and Leases, July 8 and July 1, 1927

(Continued from Page 43)

Company	Farm	S. T. R.	July 8 No. Wells	July 8 Prod.	July 1 No. Wells	July 1 Prod.
Mid-Continent	Rentie	14- 9-6	9	1,530	9	1,560
Mid-Continent	Tayeche	24- 9-6	7	410	7	550
Total Mid-Continent			16	1,940	16	2,110
Mid-Kansas	Johnson	25- 9-6	1	760	1	725
Mid-Kansas	Pressley	3- 8-6	1	89	1	94
Total Mid-Kansas			2	849	2	819
Philmack	Butler	35- 9-6	3	5,190	3	4,970
Phillips	Strother	27- 9-6	3	292	3	722
Prairie	Gross	25- 9-6	5	165	5	80
Prairie	Mason	13- 9-6	1	1,325	1	1,430
Prairie	Spencer	13- 9-6	1	15	1	15
Prairie	Strother	27- 9-6	8	2,050	8	2,290
Total Prairie			15	3,555	15	3,815
Pure	Strother	26- 9-6	17	3,091	17	2,916
Pure	B. Strother	36- 9-6	3	4,137	3	4,523
Total Pure			20	7,228	20	7,439
Roxana	Harber	22- 9-6	2	407	2	504
Roxana	Lashley	22- 9-6	2	60	2	116
Total Roxana			4	467	4	620
Sinclair	Carter	13- 9-6	2	35	2	35
Sinclair	Cudjo-A	35- 9-6	6	1,385	6	1,330
Sinclair	Cudjo-B	35- 9-6	3	715	3	1,095
Sinclair	Dicey	22- 9-6	1	575	1	595
Sinclair	Fixico	23- 9-6	4	585	4	680
Total Sinclair			16	3,295	16	3,725
Slick	Born	35- 9-6	1	0	1	0
Slick	Cudjo	35- 9-6	3	1,363	3	1,774
Slick	Franks	35- 9-6	8	982	8	688
Slick	Giblet	35- 9-6	1	1,722	1	1,748
Total Slick			13	4,067	13	3,755
Superior	Cudjo	35- 9-6	4	1,871	4	1,970
Texas	Mayhue	14- 9-6	1	260	1	230
Tidal	Carter	24- 9-6	5	2,115	5	2,310
Tidal	Fixico	26- 9-6	8	835	8	1,330
Tidal	D. Harjo	25- 9-6	1	1,665	1	1,785
Tidal	T. Harjo	23- 9-6	7	205	7	240
Tidal	Mahardy	24- 9-6	3	1,105	5	1,000
Tidal	Tayeche	25- 9-6	2	1,560	2	1,730
Total Tidal			26	10,355	28	8,395
Turman	Cudjo	35- 9-6	4	950	4	850
Turman	Grisso	35- 9-6	1	397	1	467
Turman	Jones	34- 9-6	4	2,394	4	2,148
Total Turman			9	3,741	9	3,465
TOTAL SEMINOLE PROPER			301	98,733	307	101,638
SEARIGHT						
Carter	Davis	4- 9-6	5	6,510	5	7,190
Carter	Frazier	3- 9-6	4	6,255	4	6,765
Carter	Kiker	29- 9-6	1	40	1	35
Carter	Scott	26-10-6	1	40	1	40
Carter	Stewart	34- 9-6	1	0	1	0
Total Carter			12	12,845	12	14,030
Gypsy	Cudjo	4- 9-6	1	485	1	557
Mid-Continent	Grayson	33-10-6	6	3,535	6	3,895
Mid-Continent	Saloche	33-10-6	2	1,680	2	585
Total Mid-Continent			8	5,215	8	4,480
Prairie	Cannon	33-10-6	1	15	1	0
Prairie	Carter	10- 9-6	1	10	1	15
Prairie	Houck	30-10-6	1	10	1	10
Prairie	Kinkade	33-10-6	8	3,840	8	3,520
Prairie	Wiemer	22-10-6	1	20	1	20
Total Prairie			12	3,895	12	3,565
Pure	Aldridge	3- 9-6	2	3,220	2	1,900
Roxana	Strother	3- 9-6	1	2,513	1	3,217
Searight	Youngblood	33-10-6	0	0	2	0
Sinclair	Polly	3- 9-6	2	2,785	2	2,455
Twin State	Cudjo	4- 9-6	1	1,180	1	1,245
Wilcox	Chupco	4- 9-6	2	2,400	2	2,576
TOTAL SEARIGHT			40	34,538	43	34,025
GRAND TOTAL SEMINOLE DISTRICT			575	443,425	565	430,134

	Wells	Production	Avg. Per Well
Hunton Lime	54	8,000	148.1
Shallow Sand	30	3,190	106.3
Wilcox Sand	491	432,235	880.3
Total	575	443,425	771.2

Completions in North Louisiana and Arkansas, Week Ended July 9, 1927

Company	Well	Locations	Depth	Yield
Louisiana—Bossier Parish—Carterville				
Estes & Bolinger	Bodcaw Lbr. Co. No. 1	15-23-12	3090	13½M gas
Caddo Parish—Vivian				
Bayou State Oil Corp.	Hoss No. 30	24-22-15	1047	15
Caddo Parish—Caddo District				
W. W. Dodson	Rives No. 5	5-20-16	1855	15
Haynes Brothers	Murray No. 1	14-21-15	3685	6,500 barrels through 1-in. choke
Standard Oil Co. of La.	J. J. Hart No. 14	34-21-16	1823	50
Cotton Valley—Webster Parish				
La. Oil Ref. Corp.	M. Gray No. 7	28-21-10	2580	75
Northwest La. Gas Co.	Coyle No. 1	22-21-10	4409	4 M gas
Caddo Parish—Elm Grove				
Ark. Nat. Gas Co.	Gayle No. 8	30-16-12	2450	1M gas
Pleasant Hill—Sabine Parish				
Arkansas Fuel Oil Co.	Logan No. 8	33-10-12	3228	20
Ark. Fuel Oil Co.	Williams No. 1	32-10-12	3229	20
Ouachita Parish				
Ladell et al	Fee No. 41	31-20-5E	2192	20M gas
East Texas—Panola County				
Magnolia Pet. Co.	John Lewis No. 4	Jas. Johnson HRS	1997	30
Arkansas—Nevada County				
Humble O. & R. Co.	Hein No. 1	1-14-21	1100	8 M gas
J. J. O'Brien	Moss No. 3	1-14-21	1158	50
Smackover				
Exchange Oil Co.	Berg No. 3	4-16-15	2367	25
Exchange Oil Co.	Berg No. 7	1-16-15	2361	20
Magnolia Pet. Co.	Union Lbr. Co. No. 1	21-16-16	2675	10
Natural Con. Pet. Corp.	Fagg No. 2	8-16-16	2647	35

(*Continued from Page* 41)

are in one week and out the next, both happened to make the grade this week, thus swelling the total.

A newcomer this week in the ranks of Earlsboro producers is the Continental Oil Co., which drilled in its No. 2 Hollins with initial production of 4435 barrels. This well, in the SWc SE NW of 12-9-5, is 4256 feet deep, and in the Wilcox sand. Another good Earlsboro well drilled in the past few days was Barnsdall Oil Co. No. 2 Gibson, in the NWc NW NE of 9-9-5. This well started off flowing 125 barrels an hour in the Wilcox sand from 4291 to 4297 feet.

In Logan county, Roxana Petroleum Corp. No. 1 McCully, wildcat producer in the Wilcox sand and the deepest commercial well in the Mid-Continent field, is holding up at 2400 barrels daily. Ozark Pipe Line Co., (Roxana) has completed a 4-inch line from its Garber station 20 miles to the well, and will start running oil today. This well is in the Wilcox sand at total 5987 feet.

The Conservation Oil Co. well near Ada, subject of many conflicting reports, was tested out during the week, and is said to have flowed 500 barrels in two hours, with no cut oil. Apparently the well makes water in slugs, the water appearing when the well is closed in and disappearing when it is allowed to flow open.

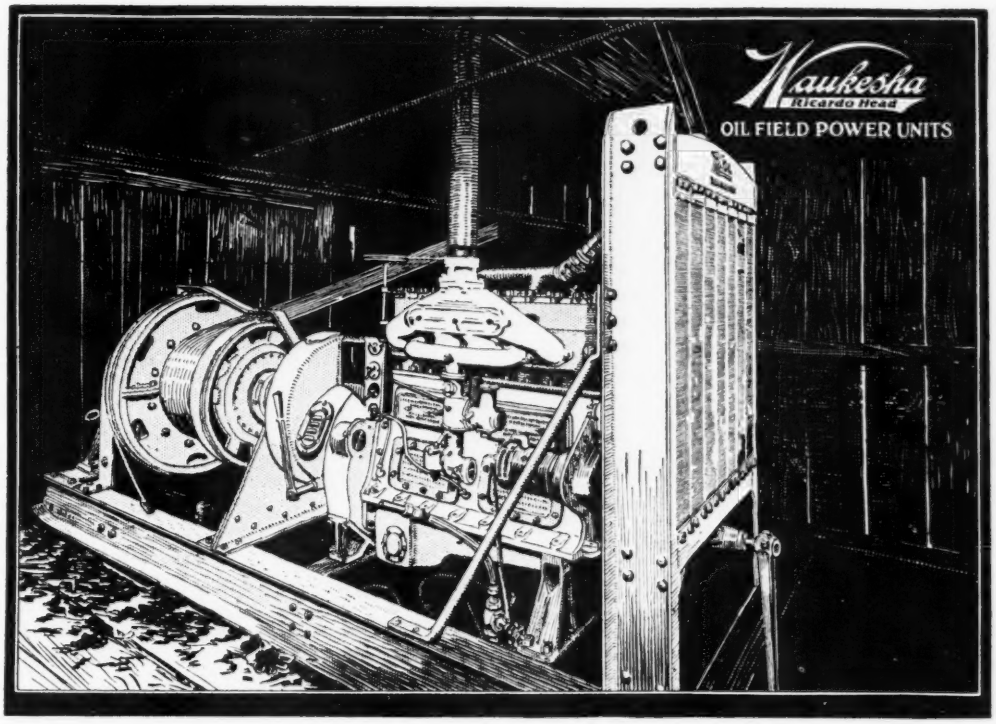
During the week, 8600 barrels of oil in tanks at the well were successfully treated and the oil turned over to the pipe line company, which previously had refused to run it. Correct depth of the Conservation well is 2693 feet. Casing is landed on bottom, the well producing through slots burned in the lower half of the bottom joint of pipe.

Charter has been granted the Conservation Oil Co., which was formed by a pooling of interests of lease-owners in the vicinity of the wildcat discovery well. The company's policy as to offsets and drilling program will be discussed at a meeting of directors July 13.

In Kansas two interesting wildcats attracted attention. Vickers Petroleum Co. has a good showing in its test in Rooks county, a rank wildcat about 18 miles northwest of production in the Russell field, the Mid-Continent's most western pool. The Vickers well is in 11-9S-16W, about 50 miles south of the Nebraska line. It got the top of what is probably the Oswald (Russell county) pay at 3264 and at last reports was swabbing 8 barrels an hour of 41-gravity crude.

Marland-Roxana No. 1 Schmidt, in Sedgwick county, about 4 miles southwest of Wichita, is also making an interesting showing. This well had top of the Mississippi lime at 3360 feet and had a good showing of oil at 3397 feet, which may be the Wilcox sand. It is in the NW SW SW of 5-28-1W, and is about 25 miles northwest of the Churchill pool, near Oxford.

Waukesha Engined Cable Tool Drilling Rig in Hubbard Field, Okla.



p-725-L

Not Advertising Claims

Here's a heavy cable tool drilling outfit driven by a 125 horsepower Waukesha "Ricardo Head" Oil Field Power Unit. It's one of the many that have been in the hands of practical drillers for months. They say: "It's as flexible as a steam rig—runs nicely on 'waste' gas or gasoline—just the thing where water is scarce—easily starts a 24-inch hole and has produced wells to a finished depth of 3800 feet." Similar proven performances rather than advertising claims is one of the secrets of the success of Waukesha built units in the Oil Fields.

Proving a product in the hands of the practical men who will have to use it, before it is released from the experimental stage and announced publically, is a merchandising policy to which the Waukesha Motor Company has adhered through the twenty-one years of its life. In a measure it accounts for the company's growth, and the fact that it is the largest builder of heavy duty Automotive Type Engines in the world today. If you want to know more about this Cable Tool Drilling Unit write for Bulletin No. 594.

P-743-L

OIL INDUSTRY EQUIPMENT DIVISION

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New York	Kansas City	Denver	Tulsa	Houston	San Francisco
8 W. 40th St.	*V. L. Phillips Co.*	*Wilson Machy. Co.*	*C. F. Camp Co.*	*Portable Rotary Rig Co.*	*C. A. Watts*

Exclusive Builders of Heavy Duty Gasoline Engines for Over Twenty Years

Completions in Oklahoma and Kansas, Week Ended July 9, 1927

OKLAHOMA

Carter County

Company	Well No.	Location	Depth	Init. Prod.
Magnolia	6	NWc SW SW 19-1-3 W	2314-2838	150
Magnolia	1	SEc NE 21-2-3 W	2202-2206	135
Humble	3	NWc SW SE 28-1-3 W	3391	Dry

Caddo County

Mason et al	1	C W½ NE 17-5-14 W	T.D. 700	Dry

Creek County

Devonian et al	2	NEc SW NE 36-15-7 E	3235-3244	30½M
Wells-Christie	2	C NW NW 10-18-11	1881-1896	10
Ray	3	SWc SE SW 13-17-10	2425-2462	600
Thompson-Black	2	NEc SW SW NW 16-17-11	1876-1939	7M
Pioneer	2	NEc SE NW 19-17-11	T.D. 2725	Dry

Grady County

Frates et al	1	NEc SW 6-3-5 W	T.D. 3110	Dry
Nicholos	3	SWc SE 35-5-8 W	T.D. 2404	42M
Watchorn	4	C SW SE 11-4-8 W	3350-3353 OWD	60M
Carter	5	SWc SE 16-3-5 W	1699-1714 OWD	285
Carter	2	SEc NE 21-3-5 W	1707-1718 OWD	100
Magnolia	6	NWc NE NE 28-3-5 W	1703-1715	23M
Prairie	4	NEc NW 21-3-5 W	1667-1798	290

Grant County

Amerada	1	NWc SW 22-29-3 W	T.D. 4903	Dry

Haskell County

San Bois	1	NWc 26-8-20 E	T.D. 1000	¾M

Kay County

Blackwell	11	C N½ SE 18-28-1 E	3306-3423 OWD	195
Harris-Hahn	1	SWc 9-27-1 W	3441-3453 OWD	7M
Marland	4	SWc NW SW 6-26-1 W	3671-3683	366
Carter	1	NWc SE 30-25-1 W	4304-4368	64
Comar	1	NWc SW 4-28-1 W	T.D. 3985	Dry
Stark et al	1	SEc NE SE 28-28-2 E	T.D. 3967	Dry
Morton et al	1	NWc SE 21-26-1 E	T.D. 4645	Dry

Muskogee County

Sommerville	3	SWc NW NE 17-14-17	T.S. 1500	14M

Okfuskee County

Umburn	1	NWc SE NW 11-10-11	T.D. 2700	Dry

Okfuskee County

Umburn	1	NWc SE NW 11-10-11	T.D. 2700	Dry

Oklahoma County

Cromwell et al	1	C SW 28-12-4 W	T.D. 4713	Dry

Osage County

Texas	3	SWc SE SE 30-25-8 E	2430-2476	100

Pontotoc County

American	1	CSL SE 27-5-6 E	1916-1918	10M

Pottawatomie County—Seminole

Barnsdall	1	SWc NE 9-9-5 E	4310-4316	3147
Prairie	8	NEc E½ SE 27-9-6	4171-4208	100
Prairie	2	SEc SW NE 9-9-5 E	4307-4312	5330
Phillips	2	SWc SE 9-9-5 E	4433	Dry
Gypsy	1	NWc SE 16-9-5 E	4366	Dry
Gypsy	4	SWc NW 16-9-5	T.D. 4455	Dry
Indep. et al	1	NEc NW 21-9-5	T.D. 4555	Dry

Pottawatomie County

Magnolia	1	NEc NW SE 11-7-4 E	3705-3777	50
Magnolia	1	NEc NW NE 22-7-4	3648-3660	21M

Seminole County

Mid-Continent	2	SEc SW 33-10-6	4328-4335	1200
Carter	1	NEc SW 1-9-5	3462-3492	190
Indep.	3	SWc SE NE 10-9-5	4330-4338	3624
Gypsy	1	SWc NE 12-9-5	4365-4374	3567
Amerada	7	NEc SW NW 15-9-5	4451-4455	477
Barnsdall et al	10	SWc NE SW 33-11-8	4171-4232	200
Carter	6	SWc SE SW 14-9-6	4318-4344	1540
Roxana	1	NEc SE NE 22-9-6	4287-4304	75
Independent	3	SWc SE SW 25-9-6	4507-4512	330
Tidal	1	SWc NE SW 25-9-6	4220-4233	1985
Pure	15	NEc SW SW 26-9-6	3985-4057	70
Phillips	3	NEc SW SE 27-9-6	4003-4027	112
Gypsy	1	NEc SW NE 34-9-6	4205-4265	232
Gypsy	3	NEc NW SE 34-9-6	4191-4265	235
Tidal	1	SEc NE SW 10-8-10	4020-4024 OWD	1565
Atlantic	1	SWc NW 13-8-6	4213-4227	4315
Pure	3	SEc NW SE 14-8-6	4115-4230	3506
Pure	4	NEc SW SE 14-8-6	4240-4274	1019
Pure	9	NEc SW 14-8-6	4153 T.D.	1591
I. T. I. O.	12	NEc SW NE 15-8-6	4185-4220	1770
I. T. I. O.	8	NEc SE SE 15-8-6	4286-4306	716
Minnehoma	1	NEc SW SW 15-8-6	4217-4258	1080
Roxana	3	SEc NE NE 16-8-6	4181-4230	2020
I. T. I. O.	2	NEc NW 22-8-6	4334-4351	2604
McCullough	1	NEc NW NW 22-8-6	4345-4362	1165
Carter	1	NEc SE 23-8-6	T.S. 4249 OWD	2640
I. T. I. O.	1	NWc SW 24-8-6	4512-4515	1818
Barnsdall	1	SWc SE 28-8-6	4387-4392	120
Dixie	4	NWc NE SE 29-8-8	3408-3863	4
Gypsy	1	SEc 34-10-7	T.D. 4606	Dry
Gypsy	1	SWc NW SE 33-8-6	T.D. 1740	Dry

Stephens County

Hammond et al	1	CWL SW NW 1-1-9 W	T.D. 2496	Dry
Hanbury	4	C SW SW 27-1-8 W	T.D. 2025	Dry
Beard-Cobb	1	NEc SE NW 11-2-8 W	T.D. 2252	Dry
Merrick	2	NWc NE SE 13-1-4 W	2355-2955 50 &	15M

Wagoner County

Price et al	1	SWc 32-17-17	1423	Dry
Wilson	2	NWc SE SW NE 11-16-16	T.D. 1740	Dry

KANSAS

Butler County

Schwartz et al	1	NEc SE SW NW 19-28-5 E	731-740	15
Johnson et al	1	NWc NE NW 10-28-6 E	3053-3063	10
Connell et al	1	NWc NE 9-28-5 E	T.D. 2737	Dry
Davidson et al	1	NEc SE 13-28-7 E	T.D. 3233	Dry
Helmerich et al	1	NEc SW 1-29-3 E	T.D. 2998	Dry
Flack et al	1	SEc NW 5-29-7 E	T.D. 2803	Dry

Cowley County

Ark	1	SEc NE SW 6-32-5 E	2334-2348	100
Forrester et al	2	SWc NE NW 4-33-7 E	1035-1046	5M
Pyle-Sutter	1	C NE SE 16-35-4 E	1873-1879	2¼M

Elk County

Theta	2	SEc 27-31-10 E	1980-1999	10

Ellis County

Keys Promotion	1	SWc NW 13-13-18 W	T.D. 1405	Dry

Greenwood County

Noble et al	1	SWc 22-26-9 E	2290-2313	20
Kansas Cent.	1	C NW SE 14-26-11 E	632-651	3½M
McGinnis et al	1	SEc SW 4-27-11 E	1788-1805	50
Fisher et al	1	NEc SE SW 3-23-10 E	T.D. 2415	Dry

Marion County

Sinclair	1	NEc SE 21-17-4 E	2379-2404	500
Allison et al	1	NEc NE 15-21-3 E	T.D. 2918	Dry

Morris County

Nicols et al	2	C NE NW 14-16-7 E	T.D. 1525	Dry

Rice County

Mid-Kansas	1	NEc SW NE 13-21-8 W	T.D. 4029	Dry

Russell County

Mid-West	33	SEc SW NW 30-12-15 W	3470-3271	5
Streeter et al	1	SWc NE 7-13-15 W	3088-3170	75

Sumner County

Gypsy	1	NEc SW NE 3-31-2 E	T.D. 3643	Dry
Shawver et al	1	NEc SE NE 34-32-2 E	T.D. 3568	Dry

Woodson County

Schonetus et al	1	NWc 30-23-14 E	T.D. 7008	Dry

Moderate Decline in California Output Anticipated

LOS ANGELES, July 9

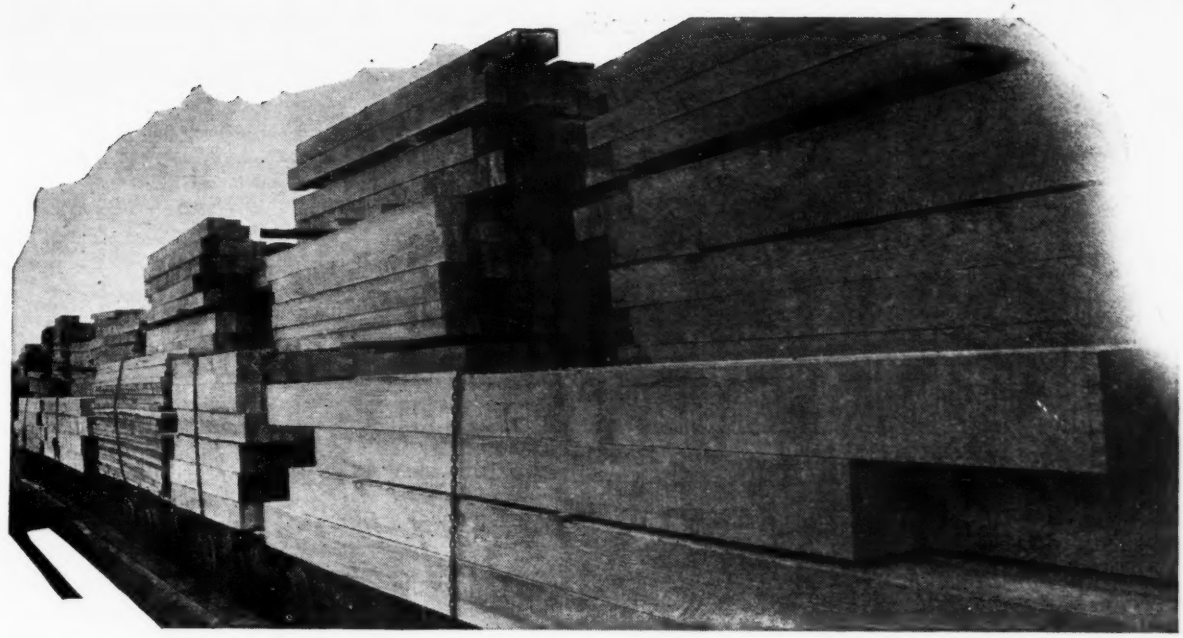
DURING the week ended today, California fields showed another decline of about 6000 barrels, with indications that further small declines can be expected for six weeks, or even longer.

It is likely some companies will open up at least a portion of their shut-in light oil production if the state daily production declines to near 600,000 barrels. Total shut-in production of California is approximately 90,000 barrels, daily average, and of this 30,000 barrels is refinable crude. A portion of this light crude represents pinched in production at Ventura Avenue field, which likely will be the first to be opened.

There was a further small decline in the Alimiotos Heights end of the Seal Beach the past week, due to the low flush of the new completions, which averaged around 500 barrels to the well, against better than 1000 barrels some six weeks ago. Fewer wells are drilling now, and this number will decrease every week from now on. Seventeen wells were drilling late this week for the deeper Wasem sand discovered by the General Petroleum in its Wasem No. 7 two weeks ago. This discovery well is now producing 200 barrels, natural flow, cut about 1 per cent. General Petroleum has three wells drilling for the deeper sand expected below 5000 feet, but none of the 17 wells headed for the deep sand are expected to be completed for another week or ten days. And until another 2 or 3 wells penetrate this deep sand, no one can guess what it will be worth, or its extent.

Long Beach and Huntington Beach are both showing small declines in production with very little new work going on. The few new wells being completed in the town lot area at Huntington Beach have a flush of around 200 barrels or less.

There were no further developments at the Chanslor-Canfield Midway Oil Co.'s wildcats on the Hobson tract west of the Ventura Avenue field in Ventura County. More holes are be-



Douglas Fir structural grade timbers

Douglas Fir structural grades are based on actual strength values

NOW you can buy timbers that are graded according to the actual purpose for which they are to be used—whether for walking beams, Samson posts, sills and derrick framing, or girders, columns, joists and planks. The grades of Douglas Fir structural timbers were developed by engineers at the U.S. Forest Products Laboratory, Madison, Wisconsin, after thousands of exhaustive tests. Douglas Fir structural timber grades are based on strength rather than appearance—on the ability of each piece to carry a definite load. All wood varies in type and these grade specifications are based on these variations. You can safely use stresses based on specific grades in which the strength of a timber can be determined within close limits by visual inspection alone. These structural grades of Douglas Fir are in accordance with all West Coast Lumbermen's Association and American Lumber Standard grades and conform to the actual grades as specified. Moreover, Douglas Fir timbers can be furnished in large sizes and long lengths—ON GRADE.

When you contemplate the purchase of timbers, we urge you to consider the many advantages of Douglas Fir and the fact that it is obtainable promptly at reasonable prices. A semi-technical book, "The Mechanical Properties of Timbers," by C. J. Hogue, M. Am. Soc. C. E., has just been published by the Bureau. Ask us for your copy—there is no charge. *Address,* West Coast Lumber Bureau, 560 - N P Stuart Bldg., Seattle, Washington.

W327E

Important West Coast Woods — Douglas Fir - West Coast (Sitka) Spruce - West Coast Hemlock - Western Red Cedar

Completions in N. E., Central, West, Panhandle and North Texas, Week Ended July 9, 1927

N. E. CENTRAL

Brown County

Company	Well Farm	Location Survey	Depth	Init. Prod.
H. O. & R.	19-Hickman	Benson	1220-1260	12
Curry et al.	6-Pickett	Logan	1268-1283	5
McLester	9-Clark	ET	1185-1213	20
McKenna et al.	20-Shore	Betts	1330-1334	100
Texas	70-Lowe	Stubblefield	1287-1309	50
Texas	86-Lowe	Stubblefield	1253-1264	70
Empire	1-Jones		T.D. 2400	Dry
Inland	1-Willis	SA&MG	T.D. 1350	Dry
Moore	1-Wright	SA&MG	T.D. 1335	Dry
Sariner et al.	1-Clark	Kerr	T.D. 427	Dry

Callahan County

Fallin et al.	1-McCandless	McCandless	T.D. 1000	Dry
Southern Expo.	1-Smart	D&DA	T.D. 838	Dry
Valley	4-Ramsey	D&DA	T.D. 458	Dry
Valley	5-Ramsey	D&DA	T.D. 450	Dry

Coleman County

White Eagle et all.	2-Casey	Cocheron	1670-1705	10
Duffield et al.	1-Russell	Martin	1511-1531	15
Marland et al.	1-Lobstein	Moth	T.D. 2013	Dry
Wilcox	1-Bough	Stewart	T.D. 1510	Dry
Hoffer	1-Cameron	Cleveland	T.D. 1632	Dry

Eastland County

Lowe et al.	1-Barnett	H&TC	2958-3030	785

Fisher County

Barbour	1-Cross	TP	T.D. 3005	Dry

Haskell County

Kouri	3-Ballard	Carson	T.D. 2045	Dry

Jack County

Seaboard	1-Jackson	Washington	T.D. 2502	Dry

Jones County

World	1-Boyd	Jones	T.D. 3040	Dry
Gibson-Johnson	1-Largent	Dewitt	T.D. 3002	Dry

Mitchell County

Teas	1-Strain	H&TC	1670-1700	10
California	3-Adams	BK	2965-3050	25

Shackleford County

Tannehill	7-Mathews	ET	1039-1047	25
Albany	4-Reynolds	T&P	1033-1045	100
Centon	1-McLemore	TEL	T.D. 800	Dry
Gibson et al.	2-Mathews	ET	T.D. 1235	Dry
H O & R.	3-King	ET	T.D. 2002	Dry
McGinely et al.	1-Reynolds	TP	T.D. 1503	Dry
Brann	1-Manley	TP	T.D. 2256	Dry
Gwinnup et al.	1-Green	T&P	T.D. 1802	Dry
Ross	2-Poindexter	T&P	T.D. 1506	Dry

Stephens County

Thomas	1-Chesley	SP	T.D. 2110	Dry

Throckmorton County

Falls Prod.	½-Graham	TE&L	1807-1820	100
Gulf Prod.	5-Graham	TE&L	1803-1815	30

Young County

Shermerhorn	1-Thompson	TE&L	2050-2080	30

NORTH TEXAS

Archer County

United Prod.	1-Perkins	DCSL	1016-1032	15
Sun	1-Andrews	Rainey	908-916	28
Blair et al.	1-	PPCSL	T.D. 2003	Dry
Paden	1-Looney	Harris	T.D. 1402	Dry

Cooke County

Company	Well Farm	Location Survey	Depth	Init. Prod.
Gist-Grady	1-Harris	Harris	1745-1752	63
Kewanee	2-Dennis	Hutchinson	1290-1295	100
Richardson	1-Moore	Richolt	T.D. 2440	Dry
Hughes	1-Hopkins	SP	T.D. 2507	Dry

Grayson County

Sowell et al.	1-Cannon	Martin	T.D. 2800	Dry

Knox County

Bend	1-Johnson	G&W	T.D. 2080	Dry

Montague County

Continental	2-Hinton	Coates	522-530	8M

Wichita County

Wolfe	1-Kemp	Kempner	1811-1814	110
O'Neil	1-Woodward	WC	T.D. 2512	Dry
Koltex	1-Van Horn	Langford	T.D. 1935	Dry
Murchison	1-Bravo	H&TC	T.D. 2003	Dry
Sandford et al.	1-Hamilton	Gibbs	T.D. 2001	Dry
Panhandle	3-Dauney	S&P	T.D. 692	Dry

Young County

Alladay	2-Davis	TEL	T.D. 955	Dry
Wolfe	1-Wilson	YCSL	T.D. 900	Dry
Rose et al.	1-Butler	TEL	T.D. 1050	Dry
Burton	1-Porter	Cantwell	T.D. 660	Dry
Stafford et al.	1-Dyer	Harding	T.D. 732	Dry
Reed et al.	1-Loftin	Splane	T.D. 650	Dry

PANHANDLE

Carson County

Texas	1-McConnell	I&GN	3153-3157	320

Castro County

Gulf	1-Clements	S&M	T.D. 4600	Dry

Gray County

Wilcox	16-Reynolds	I&GN	2830-2915	40

Hutchinson County

Goldeline	4-Whittenberg	H&TC	2905-2910	110
Midwest	6-Johnson	H&TC	2858-2878	50
Phillips	4-Dorsett	H&TC	2673-2685	225
Phillips	1-McMillan	H&TC	2250-2287	60M
Delmar	4-Johnson	A&B	2735-2755	12M
Phillips	16-Patton	Whitley	2888-2920	50
Phillips	2-Walling	Whitley	2958-3004	75
McMan	2-Cockrell	D&SE	3004-3022	200
Mudge	2-Cockrell	D&SE	2995-3030	12M

WEST TEXAS

Crane County

Eastland	5-Univ.	Univ.	2816-2950	1345
Eastland	7-Univ.	Univ.	2838-2945	3573
Magnolia	6-O'Keefe	Univ.	3000-3038	100
Tidal	5-Univ.	Univ.	2835-2940	1481
Gulf	14-McElroy	GCSD	2794-2949	815
Gulf	15-McElroy	GCSD	2750-2896	1435
Landreth	5-Cowden	Anderson	2762-2908	640

Pecos County

Mid-Kansas et al.	6-Yates	I&GN	973-1045	28800
California	1-Cordova	T&SL	T.D. 2175	Dry

Upton County

Dixie	13-Hughes	Teer	T.D. 2260	Dry
Gulf	1-Hughes	Teer	T.D. 2360	Dry

ing made at both wildcats, but, due to the extreme gas pressure, progress is very slow. Hobson A-1, which cemented 4½ inch at 6350 feet, has made more than 200 feet of hole, showing oil sand mixed with shale, with the gas pressure stronger, plenty of Haemitite being used to add weight to the rotary mud. Hobson B-1 cemented 8⅝ inch at 4216 feet and a total depth of slightly exceeding 4400 feet has been reached, the formation below the shoe showing plenty of oil and gas. Officials of the company plan to continue to drill as long as the favorable formation is penetrated, as they are in no hurry to place the wells on production. The oil will be run by the General Petroleum to a loading rack less than two miles away.

The Holly Development Co. tested a wildcat this week some 2000 feet east of the East Coyote field in Orange County for a flush of about 600 barrels of 22 gravity oil at 2550 feet; but this production declined to about 300 barrels in less than 2 days and then water broke in to such an extent that the well will have to be recemented. The hole originally had been drilled into bottom water and plugged back. It is thought the bottom plug is imperfect. Some importance is attached to the well, although some are of the opinion that it will never be made into a real commercial production on account of water troubles, but the well does prove the existence of an oil sand in wildcat territory.

Seminole Production 450,144 Barrels

Staff Special

TULSA, July 12.—Seminole production for the 24 hours ended 7 a. m. July 11 reached a new high of 450,144 barrels from 581 wells. This was an increase of over 9000 barrels over the preceding day. Bowlegs produced 201,339 barrels including 12,700 barrels from I. T. I. O. Little River discovery well. Earlsboro made 121,087 barrels, Seminole field, 94,041 and Searight 33,677 barrels.

In the Earlsboro field, the Amerada Petroleum Corp.'s No. 1 Cowden went dead Saturday after making more than 3,000 barrels the previous day. It was given a shot of 20 quarts, made 7830 barrels during the next 19 hours and 8960 barrels during the 24 hours ended July 12.

The Texas Co. got its first Earlsboro production in No. 1 Rogers, southeast corner of 5-9-5, making 3690 barrels initial in Wilcox sand from 4353 to 4373 feet.

Independent-Margay in 4-9-5 biggest well in the district, made 12,800 barrels July 11.

Baytown, Tex.—R. B. Roopen has succeeded D. J. Wallace as safety director of the Humble Oil & Refining Co. at Baytown.

Continental's 'Ice Cream' Well Leads Company to Seek More Like It

By Lawrence E. Smith
N. P. N. STAFF WRITER

WALDEN, Colo., June 28

THERE'S only one trouble with the North Park, Colorado, country, says one of the pioneer inhabitants. Three months out of each year it is impossible to use a sleigh.

Of all the places to pick, out of all the millions of acres in the United States, to drill a well! Mountains on all sides, rearing their granite peaks far above the floor of the basin thus enclosed, snow covered caps visible in all directions from the well. The derrick floor at an elevation of 8200 feet above sea-level. Passes through the mountains closed much of the time through the winter, so that the little community is cut off from the world for days and weeks at a time, except as the train which is supposed to make its three trips each way weekly over the little road from Laramie manages now and then to fight through the drifts.

Yet, this is the place the Continental Oil Co. decided to do some wildcatting. A considerable time ago, looking favorably upon structural evidence, partly worked out by core drilling, the company acquired the acreage it wanted. It had no opposition from competitors. It started a test the first week of September, 1925 and about 15 months later was rewarded with the greatest freak well ever drilled in all the history of well drilling.

The well is known in some circles as the Continental's "Ice Cream Well." It makes non-flammable gas—30 million feet of it, and that is not novel. It is novel, however, that it makes oil along with this gas and the oil is in paying quantity.

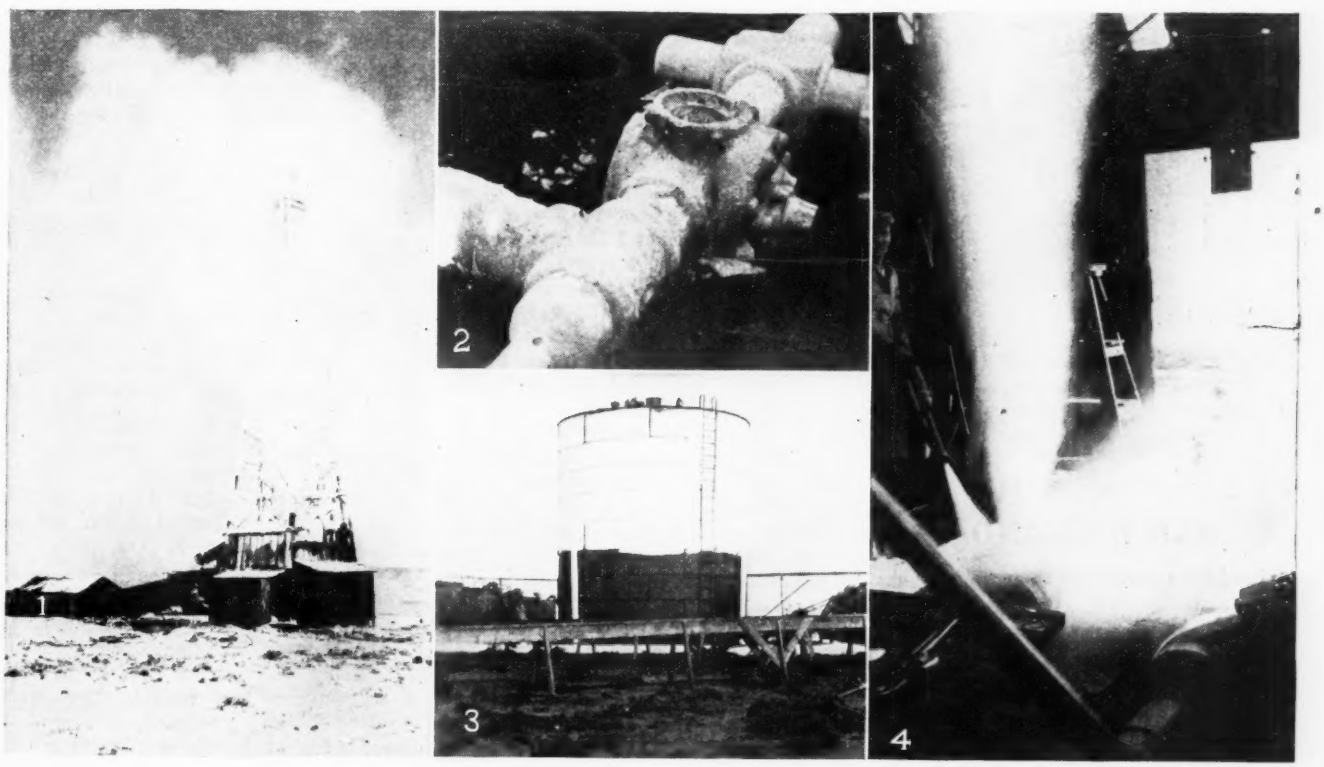
But it comes from the well in the form of mush, looking something like lemon sherbet. The oil is, in fact, frozen. It is strange and weird and all the other adjectives. Any man can earn a reputation as a great liar by telling about it to a group that hasn't heard of it. But it is all true, for these old eyes have gazed upon it this week and, furthermore, the camera doesn't lie.

The well, known as No. 1 Sherman from the name of the permittee, is in Jackson county, which is right up against the Wyoming line. It is a little north and east of the central part of that region called North Park and is about four miles northeast of Walden and is in Sec. 12-9N-79W.

Between those starting and completion dates—first week of September 1925 and Dec. 16, 1926, there was many a heartache. First off, it was thought that one of the objective sands would be found at around 3900 feet. It wasn't. Frank Williams, the field superintendent, swore there couldn't be an oil field in that district.

FOR one thing, argued he, there was too much good water in the vicinity and the boiler expense wouldn't run high enough. Furthermore, it was fine drinking water and who ever heard of decent drinking water near a Rocky Mountain oil field? Besides (along at the latter stage of the drilling) the crew decided as one man that it was hopeless.

It happens that the Continental has a president who is always curious to



Snapshots taken at Continental's "Ice Cream Well." No. 1 shows how the derrick looks in winter. No. 2 shows the casinghead just before the well was opened. No. 3 is a view of an ice-covered flow tank. The bottom part is the portion warmed by steam. No. 4 shows the casinghead after being opened. The man at the left is holding a steam line which had to be played on the casinghead for several minutes to free it of ice so the valve could be opened.

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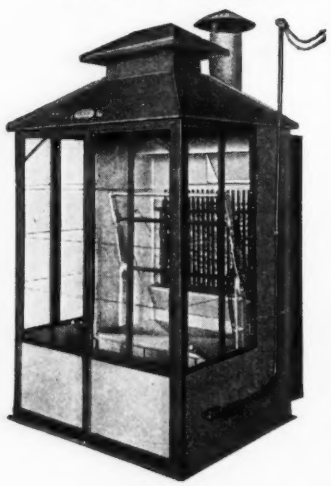
BAR-B-Q



No. 181

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Someone in your locality will install a Barbecue.

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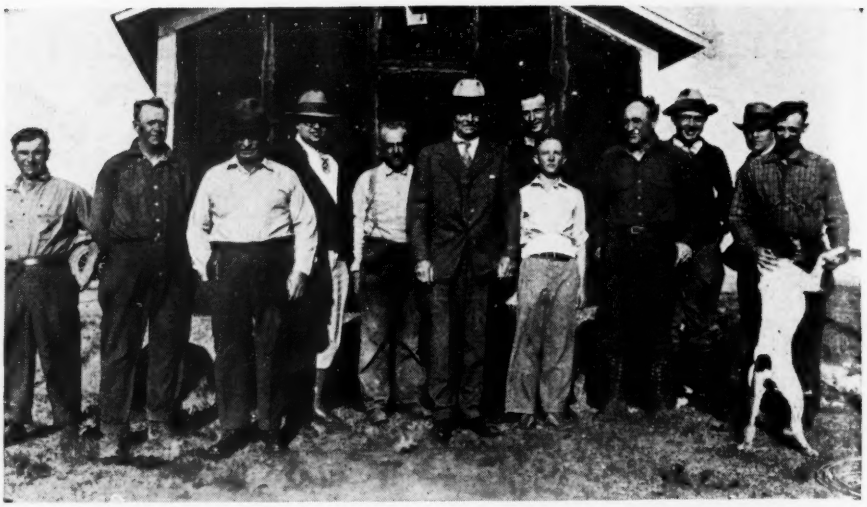


Part of the Continental force at North McCallum with two or three visitors.

see one more screw drilled. In this case he wanted to see a lot of them drilled. So S. H. (Sid) Keoughan, this president that we are speaking of, said keep on. He didn't expect anything the first mile, anyway.

The drilling wasn't all fun. During the first winter it was quite discouraging. For weeks at a time the temperature hovered around 20 to 25 below zero. They had reached a depth of 2770 feet by Dec. 10, 1925, when they lost the tools and dropped some pipe. They fished until late in January when it was decided to wait for warmer weather.

They went back on April 5 and fished until June 12 before they got the hole cleared. From there on to the time the well came in, the going was steady but slow.

"THERE we were sitting around and hoping we'd get the 'suitcase' sand," said Frank Williams. "When you get that one, you all go home. I was sitting in the derrick and it was colder than Billy-be-damned. The crew was making a little hole and we didn't know how much more they could make, for we were in danger of running out of hole. We had more than 5,000 feet of four and three-quarter in, which we had been carrying.

"All at once the driller said he believed the tools were unhooked. They didn't seem to be hitting any more. Then I heard a hissing, so I grabbed a bucket of water and doused the fire in the stove. I yelled for them to put out the fire in the boiler. Then came the gas."

The joke was on Mr. Williams. Sometime later, after the well had been shut in, they ran a line to the boiler, which was fired with coal. They turned the gas in—and the fire went out. They threw oil on the coal and set it off again, got up a brisk blaze, and turned on the gas. It went out again.

The trouble with this gas as a fuel is that it is better than 90 per cent carbon dioxide. Gas of this kind has been found before. At Woodside, Utah, the Utah Oil Refining Co. got a carbon dioxide well about three years ago. In New Zealand, the Taranaki Oilfields, Ltd., found one about two years ago. But in the case of the latter, says Paul Whitney, one of the geologists in the party that worked cut the structure, the gas was hot. That at Walden is super-cold.

PROBABLY the gas is confined in the sand in liquid form. Released by the well, it expands and with the great expansion comes a drop in temperature until by the time it reaches surface it has fallen to 126 degrees F. below zero. Intimately associated with the gas underground is the oil. It comes out with the gas but is frozen. The oil begins to "melt" at 40 below.

Everything the gas touches is quickly frosted over. The lead line from the well to the tanks is coated all the way with an inch to an inch and a half of white, hard ice formed from the moisture in the air. Scrape it off and within a few hours, even in summer weather, it is built up again. The flow tank is coated solidly down to the point where the steam lines enter.

The well is not so spectacular in appearance now as it was in the winter—winter being defined in this region as that period from middle September to May 1.

Then the derrick was ice covered from top to bottom and the oil was piled up for many yards around the well, looking like snow banks. It fell there while the well was blowing open during the period they were getting high pressure fittings in place to shut in the well and afterward during the time they were deepening and trying to decide what to do with it. This oil has long since melted and gone into the

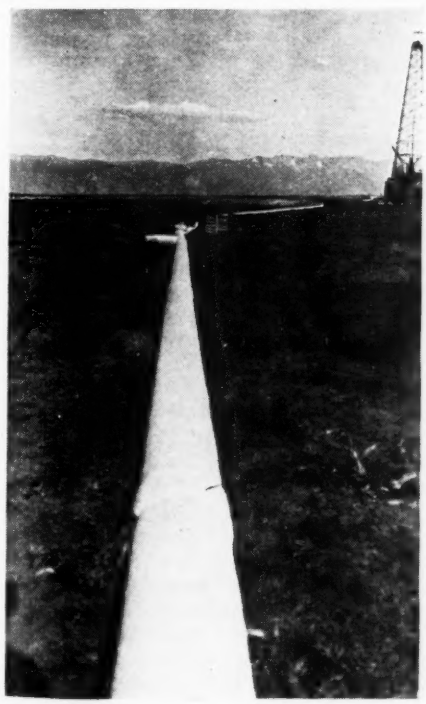
ground, staining the sage brush a light brown.

NOW, except for the white-coated connections at the well head, the white flow line and tank, the well is quite orthodox. But these differences are enough to attract many visitors and the drug store in Walden has sold many a roll of film to the amateur photographers.

Getting the well under control was not unusually difficult except that the weather was very much against the workers. The most direct route from Denver was impassable and the north entrance to the park nearly so. There were no high pressure fittings at the well, they had to be brought in from the Fort Collins field and elsewhere, away around by Laramie. The longest kind of chances were taken by Continental men, for driving through the drifts sometimes means death.

All the casing strings were hung in the 22-foot deep cellar. The men had to go in there, in the gas which was roaring out of the hole. Gas masks of the hose type, equipped with blower, were brought in, but they could be used only for brief periods as ice quickly formed on the goggles, making it impossible to see what the wearers were doing. One of the men was quite adept at working without breathing and he was a big help. He would rush in and work as long as he could, then come out and get his breath.

FORTUNATELY for the workers, Superintendent Williams had dug his cellar on the California plan, where a side outlet, or slope, is required by state law. This afforded quick entrance and exit to the casing strings.



Wherever the gas goes there is ice. This is the flow line from the Sherman well to the flow tank.

On the left is C. W. Whittaker, of the Continental Oil Co. producing department, Denver, who was escort to the National Petroleum News man on the trip to North Park. On the right is Frank Williams, field superintendent of North Park operations of the Continental. The steam line back of them was put that high because that's how high the snow was when they put it in.

Fast time was made on shutting in the well, considering all the disadvantages. The well came in on Dec. 16, by superhuman effort fittings and men were there on the 20th and three days later the valves were closed.

Then came more conversation. What to do with the thing, now they had it. It was suspected that it was a commercial oil well as it stood. Heating the pipe didn't work. A mammoth separator was brought in, but separators, although they have saved millions of dollars worth of oil in the regular fields, aren't made to handle ice cream.

The floats and valves of this one stuck and the whole stream from the well—oil and gas—shot right through. Then they ran the 8-inch line to four 250-barrel tanks, with 8-inch risers to each tank and steam coils to the bottom of each tank. The steam promptly became ice.

NEXT it was arranged to divide the tank battery into three sets. The well would be flowed into one set for a day, into another the next day and into the third set the third day. On the second day, live steam would be put into the tanks that had received the frozen oil the previous day, and so on progressively. This was not successful in completely breaking down the gas.

W. H. Price, of the Casper office of Black, Sivalls & Bryson, said he would like to play with the

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NATIONAL PETROLEUM NEWS

1213 W. 3rd St., Cleveland, O.

problem. A 1000-barrel tank was brought in, two more rings were added, making it a 1500-barrel tank. This afforded considerable room for expansion. Four 4-inch risers enter the tank from the flow line 8 feet from the ground. Inside the tank L-connections are fitted to each riser, all pointing in the same direction. This gives a whirling action to the mushy oil as it enters the tank. The top of the tank has six 4-inch gas vents and at the bottom, live steam is put into the frozen oil. A siphon carries off the steam condensate and the liquid oil is carried off in the usual way to field storage. This method has been satisfactory and the well is producing consistently.

All the steam that one boiler, operating at 100 pounds pressure, will produce is going into the tank. Before the weather warmed up, two boilers were in service for this work.

There isn't an earthly use for the gas except as an agency for lifting oil. The Bureau of Mines analysis is as follows:

	Per cent
Carbon dioxide	91.82
Oxygen	0.63
Methane	2.76
Ethane	1.89
Nitrogen	2.90

THE oil tests 52 gravity on the A.P.I. scale. In appearance it is like a straw-colored distillate and it smells like kerosene. So clear is it that one can stand on the top of a 500-barrel tank, filled to the top, and count the tank rivets all the way to bottom. On straight distillation, it yields about 50 per cent gasoline, and that in a crude stream still. There is no water with the oil. In fact, none at all was found in the hole except a little that was shut off with the 20-inch pipe.

At this time the well is making about 300 barrels each 24 hours, with a back pressure of 65 pounds. The Muddy sand, of Cretaceous age, was topped at 5110 feet and since then the well has been drilled about five feet deeper. There is no record of the well's maximum production, for it has been pinched in ever since the present method of handling the oil was worked out.

The well can be killed by filling it with water to within about 700 feet of the top, inside the 4¾-inch casing. Its present depth is supposed to be 5115 feet, but that may not be exact.

Up to May 1, about 25,000 barrels of oil had been saved and it was in February that first oil was saved.

The company has a 4-inch line to Brownlee's Siding, three and one-half miles northwest, and several tank car shipments have been made to the Continental's refinery at Glenrock, Wyo. The tank farm consists at present of one 55,000-barrel tank at the end of the pipe line.

Walden, Colo., principal town of the region and oil capital of Jackson county

INASMUCH as the company planned the well to be about 3900 feet deep, it was getting into a small hole by the time the sand was found. The formations were predominantly shale and were cavey. The pipe had to be carried which meant much underreaming. The 4¾-inch was carried nearly 1,000 feet.

The casing record on the Sherman well was as follows:

20 -inch	264 feet
15½-inch	774 feet
12½-inch	1695 feet
10 -inch	2550 feet
8¼-inch	3425 feet
6¼-inch	4080 feet
4¾-inch	5075 feet

All casing below the 10-inch string is seamless.

In comparison, the next wells will be cased as follows:

20 -inch	350 feet
15½-inch	900 feet
12½-inch	1800 feet
10 -inch	3000 feet
8¼-inch	4000 feet
6¼-inch	5100 feet

Considering the condition of the well and its performance to date, the Continental officials have every reason to be "hopped up" over the prospects for a field—and they are. President Keoughan is an incurable optimist, but his enthusiasm is shared by his associaties in this case. The North McCallum dome has closure of around 1500 feet and there are 3,000 acres within the lowest closing contour. All of the land is government permit acreage and the Continental has everything on the structure.

The Muddy sand, which has been drilled not more than five feet, is figured to have total thickness of 40 to 50 feet. Below this about 100 feet is the Dakota sand, the principal oil horizon in northwest Colorado and an important horizon in Wyoming.

THEN, too, there is a good chance that shallow production will be found on this structure in paying quantity. In the Sherman well a brown sandy shale with a small showing of oil was found at 730-740 feet. Over in Sec. 2, in an offset 40-acres to the Sherman well, there was a good showing a little while ago of 39-gravity oil at 600 feet in a sandy shale formation. It might have made a 200-barrel well, but this is to be another deep test and the company will move in a drilling machine to put down a twin well at this location.

On the North McCallum dome the new work under way consists of two deep tests on offset 40's to the discovery. One of these is drilling below 1700 feet. The other is to be a rotary test and is waiting for equipment to arrive. Two shallow holes are being drilled elsewhere on the structure for validating purposes.

Southeast of this structure is another, considerably larger, called the South McCallum anticline. Continental has signed up all the permittees on this structure and is rigging up for a deep test in the northeast of 34-9N-79W. In Sec. 27, same township and range, the Carter Oil Co. drilled a 3900-foot test. This was finished several years ago and the Carter withdrew from the territory.

THE scope of the campaign the Continental has undertaken indicates its belief that it has found something of importance. Work is being pushed because snow starts flying in September. In the extreme temperature—25 below is nothing unusual for North Park—drilling can be carried on, but the material must be on the ground. Everything must be ready. Water lines, for instance, are buried seven feet to be clear of the freezing zone, which is about five feet.

North Park is a curious little world all in itself. In "recent" times, as the geologists view the matter, these mountain masses have been thrust up through the sediments, enclosing a valley about 70 miles long by 35 miles wide at its widest place.

North Park is treeless but well watered by some 15 streams that go to make up the North Platte river,

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Those Oil men, who have already realized the size and attractiveness of this market are "cleaning up" on this widely demanded oil specialty. And they are *making their own* NON-CHATTER OIL FOR FORDS, by simply mixing our VISCOGEN JELLY with their regular automobile oil.

We don't know of one man who has discontinued making it once he has started. It's too good a thing to pass up!

Now a word about *quality*. You cannot produce quality with questionable ingredients. With Viscogen Jelly you can produce a NON-CHATTER FORD OIL you will not be afraid to back with your name and reputation. You can create a permanent, paying, growing, *repeat* business from January to December amongst the vast army of Ford owners in your territory.

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which flows out of the park to the north into Wyoming. The streams are fed by the melting snow up in the mountains and ice water, pure and clear, is the most plentiful thing in the park. These streams are alive with trout and it is a fisherman's paradise.

From time to time, in season, Mrs. Gresham, proprietress of the Gresham Hotel in Walden, sends out an expedition and the guests have trout for dinner, or even for breakfast and lunch. Such a fortuitous event occurred during this writer's stay in Walden. One of 'em was 14 inches long.

THERE is considerable good grade coal in North Park, but it has not been mined on a large scale. The one railroad is 70 miles long and runs from Laramie to Coalmont, southwest of Walden.

The cattle industry flourished some years ago in the park, but it has had its set-backs. The principal crop is wild hay, rather important. It depends upon irrigation, being grown in standing water like rice. The hay is shipped out by rail to the north. Last winter some 2000 head of deer came into the park hunting food and the government forestry service bought a large amonut of the hay surplus to feed the deer.

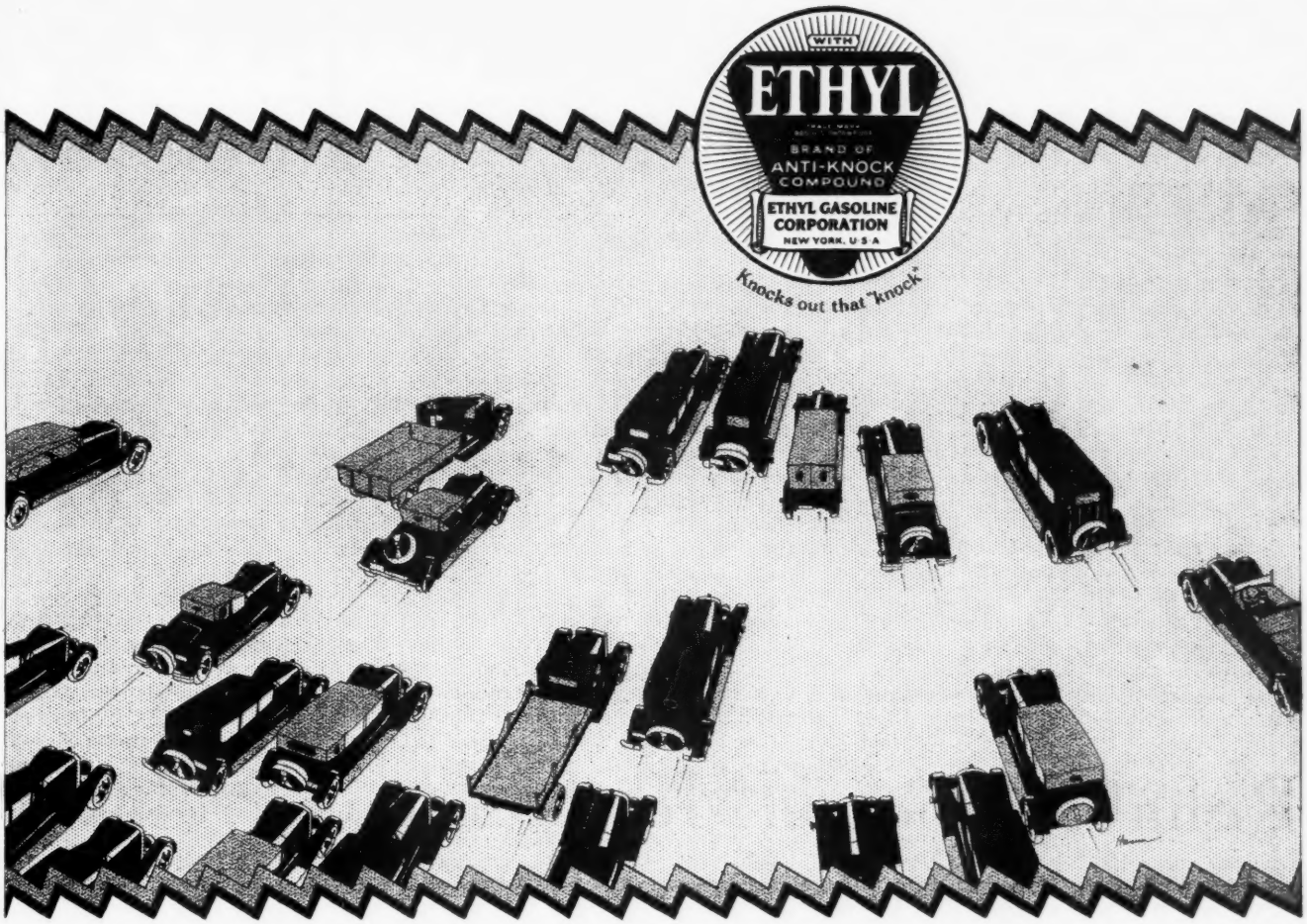
Walden, a town of 300 population, is the chief town in the park and the county seat. The town, of course, is quite interested in the Continental's venture and perhaps more so because it is the Continental. The company occupies rather a unique position in the community.

It has all the oil business there is and in another way has bound itself up intimately with the community life. Walden has no bank. Once it had two, but the years of depression in the cattle business closed the doors of both.

As a service to the business men of Walden, the Continental agent handles many of the checks that are issued. This agent, "Newt" Bellairs, has been in North Park for many years. He was a forest ranger before there was much gasoline business.

There are a number of large ranches in the park. President Keoughan, of the Continental, owns an 8,000-acre ranch some 16 miles south of Walden. It is quite out of the oil territory as now known. To this ranch he goes for most of his outings.

North Park is out of the beaten path of the tourists, but they are beginning to discover it. Most directly, it is reached from Denver via Fort Collins, thence northwest through Cameron Pass, the highest point en route being 10,250 feet. The trip is one of rugged beauty from the time the foothills are reached and the road is splendidly constructed and maintained.



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As an emergency method to maintain distribution of oil products during the flood period, Standard Oil Co. of Louisiana, laid a pipe line 450 feet along a board walk from its bulk station at Bayou Sara, La., to a point on higher ground

Rehabilitation is More Serious Problem In Louisiana and Mississippi

By J. C. Chatfield
N. P. N. STAFF WRITER

NEW ORLEANS, July 9

FINANCIAL and business leaders of the nation have been making a careful study of the Mississippi river disaster in recent weeks in an effort to gauge the economic effect of the heavy losses on the business of the nation as a whole in future months. These studies have been made by executives of some of the major oil companies with far-flung merchandising units as well as by heads of great financial corporations.

Opinion developed from these studies has been that the effects of the disaster will be largely local. Money has been freely available for immediate reconstruction needs without apparent effect on the money market. Almost overnight the nation responded with its gifts of cash and goods for relief of the refugees.

The buying power of the flooded district is not as large as the area of 2,000,000 acres might indicate even in normal times. Cotton is one of the principal crops in the area and low markets for that commodity since the 1926 harvest has depressed the district.

It may be said that certain benefits will accrue to business in the southern half of the Mississippi valley from the flood. Reconstruction will go forward with the money available for that purpose and thus create a better demand than normal for steel, forest products and labor. This may be expected to be reflected to some extent in retail business as a whole.

Although no accurate picture can be obtained of oil company losses in Mississippi and Louisiana thus far, it is apparent that the effect will be more serious than in Arkansas and Tennessee. The situation in these states was discussed in detail in an article published in NATIONAL PETROLEUM NEWS for July 6.

In Mississippi 18 Standard Oil Co. of Kentucky bulk stations were flooded in addition to many service stations and pump and tank installations. Many of these still are under water and the damage is not entirely known.

At Holly Bluff it has been ascertained that the pump house was washed away and that tanks will have to be reset. At this point water was over the tops of the storage tanks which had been filled with water to hold them down.

AT GREENVILLE, Miss., the Gulf Refining Co. was forced to leave its trucks in the garage, the crevasse in the levee came so quickly. After standing under water for several weeks it is assumed that the trucks will have to be overhauled. Two Gulf bulk stations were flooded in Arkansas, three in Mississippi and five in Louisiana.

EARLY surveys made by the Pan American Petroleum Corp., which had nine bulk stations in Mississippi under water in addition to a large number of pump and tank installations and service stations indicate that many of these will have to be worked over rather thoroughly. It appears that pumps will have to be removed, lines and valves checked, and entire assembly cleaned and painted for resetting. Tanks will have to be pumped out and some gasoline sent back to the refinery to be worked over.

In Mississippi 12 counties were either partly or wholly inundated. It is estimated that between 800,000 and 900,000 acres were flooded of which 500,000 acres were planted to cotton and 150,000 acres to corn and hay last year. In this rich delta area 200,000 persons were driven from their homes. The livestock loss is estimated to include 7,000 horses

and mules, 8,000 cattle, 22,000 swine and 260,000 head of poultry.

The effect on gasoline consumption in Mississippi as a whole has not been so marked as in Arkansas. State tax figures for the first five months of the year show sales totaling 42,289,740 gallons of gasoline as compared with 38,550,907 gallons for the same five months in 1926. The gain in consumption is 3,738,833 gallons or a little less than 10 per cent. This is considered a good showing because business would have been depressed even without the flood.

THE STANDARD OIL CO. of Louisiana had 19 stations in Arkansas and 20 stations in Louisiana which were under water and out of commission. In Arkansas the same company had 37 stations and in Louisiana 36 stations which were marooned and virtually out of commission.

C. O. Scholder, vice-president, reported last week that 60 days had elapsed since the flood began in Arkansas and that three stations are still under water and many others still inaccessible on account of bad roads. The sales force is working about 60 per cent of normal.

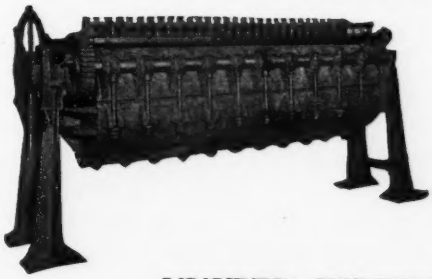
In Louisiana the Standard has found it impossible to make any sort of accurate check of losses of property or to arrive at an acceptable estimate of the gallonage loss which may be expected before its marketing facilities are normal. Louisiana district offices have predicted that total sales of the company from its stations in that state will be 25 to 30 per cent below normal. It is the opinion at present that the results of the flood will be felt in subnormal gallonage as late as September.

At its greatest extent the flood covered about 10,000 square miles of Louisiana land. Of the 64 parishes in the state 31 were affected by the flood to some extent. In addition to the destruction of a great part of the cotton and truck crops in Louisiana the state has suffered a complete loss of its sugar cane crop which totaled 47,000 tons, valued at $25,000,000, last year.

The levee system in Louisiana is at least 200 years old. The state has felt secure from floods during most of this period. After each flood it has built the system higher and stronger to be capable of caring for higher water than ever has been experienced in the past. But with the building of higher walls from year to year the state has found greater and greater volumes of water coming down in the flood season. Deforestration of the great inland water-shed and other factors have contributed to this situation by causing a more rapid run-off of spring rains and winter snows.

This year's great flood was made greater than any in previous history because of the wider area visited by heavy rains in the Mississippi valley.

Success Hung On Filtration



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RED AND PALE PARAFFINE OILS

These two tanks at the Standard of Louisiana bulk station at Melville, La., appear to be set a foot or so off the ground. In fact they are on 10-foot brick piers, the piers being buried to within two feet of their top by sand and silt deposited in the flood.

This year is the first in 75 years when all of the great tributaries of the Mississippi were in flood stage at the same time. It was this unfortunate combination of many floods which brought the lower valley its greatest disaster.

AT THE Baton Rouge refinery of the Standard Oil Co. of Louisiana the river gauge was 58.7 feet above normal on May 15. In the city itself the gauge was 47.8 feet. This was 2.1 feet higher than the previous record high water on May 17, 1922. When the gauge at the Standard refinery is zero the company has a minimum depth of 35 feet of water at its docks. The company has a serious problem with its shipping from a point where the water level varies nearly 50 feet at different seasons of the year.

Neither the Standard's plant at Baton Rouge nor any of the other river refineries in the New Orleans district was flooded. The loading docks at the Standard plant were under water and out of use from May 13 to May 22. Officials of the New Orleans Refinery Co. were concerned, but the plant was not inundated.

It will be impossible to make any authentic survey of the damage suffered by distributing properties for some time to come. Most of the bulk plants and service stations that were under water in Louisiana are still under some water and surrounded by a territory where no business could be transacted even if the stations were able to resume operations.

Early visits by boats to stations show a more serious condition than that reported by Arkansas distributors. Inventory losses will be larger, more tanks were floated away, more buildings destroyed and other property damaged.

At many points the task of cleaning up station properties will be a tremendous one due to the heavy deposits of sand and silt. An accompanying photograph shows a bulk station in Louisiana which has drifts of from 6 to 8 feet of sand and silt over the property. Tanks which were on piers 10 feet tall are now just about 2 feet above the level of the sand.

In some areas large sections of rich farm land have been buried under several feet of sand and thus ruined—at least for many years to come. In towns and cities where swift currents met obstruction which caused sand to settle it will be necessary to excavate to about the old ground level so that street paving buildings and other expensive improvements may be uncovered.

As in Arkansas and Mississippi one of the important effects on the petroleum marketing business will result from roads which have been destroyed by the floods. A large part of the improved highway system in Louisiana consists of graveled roads. Large sections of these roads probably have been washed away by the current.

Even in sections of the state which were affected largely by back-waters where the current was not swift the gravel roads have been damaged badly. The Liberty Oil Co., Ltd., of New Orleans, has a bulk station at Cotton Port, La., which was not under water. This town is surrounded by a levee of its own built by the community. But roads to and from the town were used when still partly under water and very soft. They were cut so badly that it now is almost impossible to traverse them even with horse and buggy. Automobiles cannot be used at all.

Thus far no figures are available to indicate the loss in gasoline gallonage which has been suffered by dealers in all of Louisiana. The flood did not become serious in the state until May and as this is written the state superintendent of public accounts has not completed his tax collections nor closed his May accounts. For the first four months of the year gasoline sales totaled 46,443,450 gallons as compared with 40,182,950 gallons during the same period in 1926, a gain of 15.5 per cent for this year.

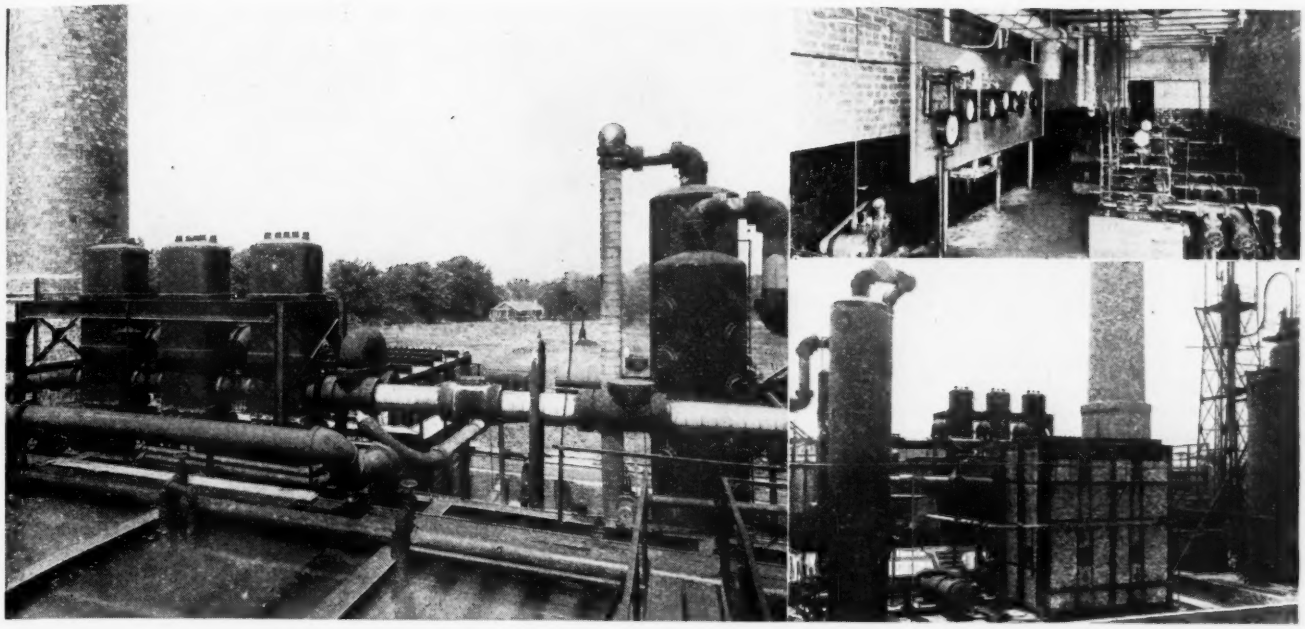
Refinery Information Given On New W.P.R.A. Map

TULSA, July 11.—The Western Petroleum Refiners Association is compiling a new refinery map of the United States which will be ready for distribution early in July. The map is 37 by 67 inches and shows the location, name, type, capacity, status, and railway connections of all refineries of the country, as of Jan. 1 will be ready for distribution. This map also shows the Standard marketing territories, lists the refineries by states, shows the group within which its output, crude runs, and stocks are included in the government statistical reports, and indicates those of the individual plants equipped for cracking.

Copies of the map will be sent to all members of the association without cost. Requests for maps from non-members have been so great in previous years that it has been determined to charge $2 for each map ordered. The map was compiled by E. H. Ritter, assistant statistician of the association.

Flood waters at Standard Oil Co. (Ky.) Plant at Holly Bluff, Mississippi.

Pipe Still Shows 72 Percent Overall Efficiency



Left, Leach "Fracto" condensers; upper right, the control room of the new pipe still; lower right, front view of new pipe still unit at the plant of the Aetna Oil Service, Inc., Louisville, Ky.

CLEVELAND, June 29

A. T. JUDY, superintendent of the refinery of Aetna Oil Service, Inc., Louisville, Ky., writes that a 2000-barrel Foster pipe still with towers, heat exchangers and automatic control, has been added to the refinery's equipment. Mr. Judy describes the new installation as follows:

"The unit consists of a Foster, Type A heater with 72 4-inch heating elements; one evaporator tower, 6 by 36 feet; one bubble tower, 5 feet 6 inches by 26 feet; three Leach "Fracto" vapor heat exchangers and one Ross residuum heat exchanger.

"Plans and specifications were furnished by H. S. Bell, consulting engineer New York City and the equipment was erected by our company.

"The unit is so controlled that all finished products are manufactured without re-running of any of the overhead products. Considerable saving was effected in construction as four 400-barrel stills were torn down to make room for this unit and with some alterations the foundations were made use of, together with the condenser boxes and coils.

"One of these boxes was used to install two Sterling section subcoolers. The original stack was made use of, it being close by and permitting excellent draft to be obtained.

"With automatic heat and liquid level controls, it is possible to operate this unit with only one man on a shift.

"The unit is now operating at 1500 barrels daily, taking 76 per cent overhead. This really represents an overload as the unit was designed for only 55 per cent overhead. The feature of this unit is the low fuel consumption. Less than one gallon of oil is used per barrel throughout. Several test runs have been made and an overall efficiency of 72 per cent has been obtained. We think very highly of this unit."

Baseball, Golf and Bulldogging at Chicago Oil Men's Outing

CHICAGO, July 9

CHICAGO oil men turned out well to the second annual outing of the Greater Chicago Oil Men's Club June 23 at Crystal Lake Country Club. More than 100 were present for two meals and recreation. Baseball and golf were the favored sports of the day.

Apex Motor Fuel Co. showed up especially well at golf. Mel Keim of Apex, last year's champion, lost his high rating to a business associate on a toss of a coin. Keim and H. Meyers, also of Apex, tied for low gross at 85 on the 18-hole course. Meyers won in the draw and is 1927 champ. Gene Lillianfield with a second low gross of 89 also works for Apex Motor Fuel Co.

Barney Majewski, Shaffer Oil & Refining Co., won a dozen new balls for scoring first low net of 67. His actual score was 89, but he was aided by a handicap of 22. Second low net was won by T. S. Thompson, Chicago Oil Marketing Co., whose 100 strokes were discounted to 68 by a 32 handicap.

Much excitement was worked up over the baseball game in which the refiners and carload marketers defeated the jobbers 18 to 16. Ralph F. Anschuetz, price service publisher, pitched for the refiners with the result that Joseph B. Mudd, Marland Refining Co., and John M. Carson, Atlas Petroleum Co., played errorless games in the outfield. Nothing came their way.

George Peterson, Geo. C. Peterson Co., started the game for the jobbers but was sent to the showers. He was replaced by Roy Thompson, Apex Motor Fuel Co., who felt more at home throwing things at Mel Keim, refiners' catcher. Together the Apex battery kept the refiners subdued after their first winning spurt. Peterson made up his pitching deficiency by being the jobbers' leading slugger.

Umpires were Carl O. Beroth, Acme Petroleum Co., on bases, and Charles S. Rosenthal, Apex Motor Fuel Co., balls and strikes. Observers stated that Rosenthal was loyal to his constituents, the jobbers, and Beroth (being a marketer) never could render a decision against a jobber, so

the refiners won on merit. Both escaped unhurt.

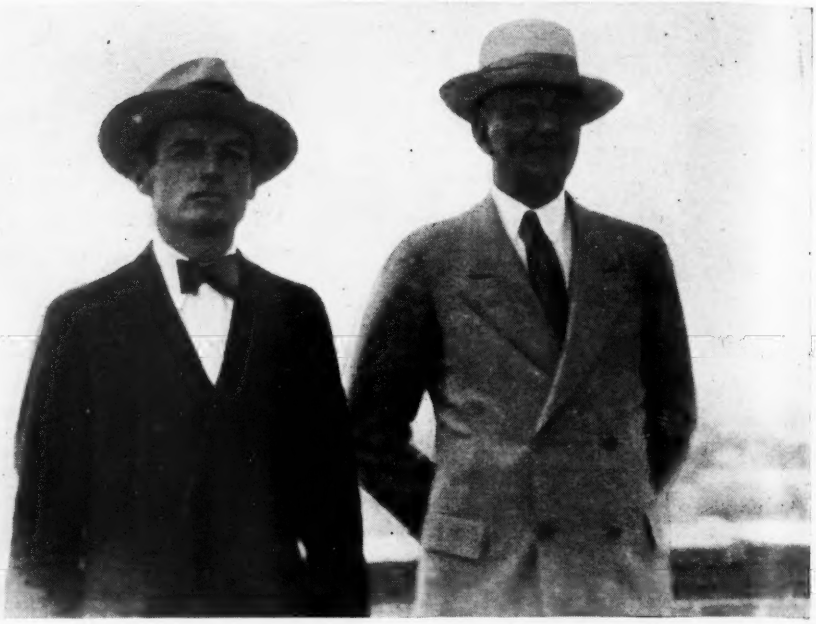
The fielding of T. S. Thompson, of golf fame, and T. McGrath, American Petroleum Products Co., featured the playing of the refiners. It was hardly more spectacular, however, than the batting of George Williams, Johnson Oil Refining Co., and E. J. Maguire, Shaffer Oil & Refining Co., each of whom knocked a home run.

Maguire got four hits including his homer; Williams got two hits, a triple besides his circuit drive; Barney Majewski and T. J. Barrett, Shaffer Oil & Refining Co., each made four hits.

Entertainment after dinner was by talent local to the industry. There were dancing, readings by members (Names furnished on request), and other light exercise. Somebody proposed a game of horse shoes but a bull throwing contest for accuracy was substituted by popular inertia.

CLEVELAND, July 7.—J. B. Richards, formerly a partner with R. K. Shoolroy, in the Arrow Oil Co., with headquarters in Wooster, Ohio and branches in other Ohio towns, with Mrs. Richards is starting an extended motor tour to the Pacific Coast about July 15. He sold his interest in the Arrow company June 3.

They Will Direct Mid-Continent Office



Left to right: Harry E. Ranford, who will have charge of the field operations, and Ray R. Rosier, who will be in charge of sales for the Signal Gasoline Co. Inc., of Los Angeles, which is opening a Tulsa office July 1

Staff Special

TULSA, July 8.—The Signal Gasoline Co., Inc., one of the largest natural gasoline manufacturers in California, has opened a Mid-Continent office in Tulsa, from which will be handled both its field operations in this area and the sales of gasoline manufactured at its plants in Oklahoma and Texas.

Ray R. Rosier, for the past five years salesmanager for the Akin Gasoline Co., and one of the best known men in the natural gasoline industry in the Mid-Continent, has resigned effective July 1, and will take over the sales of gasoline for the California company.

Mr. Rosier has been in the oil business for the past 20 years. For five years prior to joining the Akin Gasoline Co. personnel he was salesmanager for the Western Oil Corp. He has had experience also in the refining and jobbing business.

Harry E. Ranford, who has been with the Signal company for the past 18 months, has been sent to Tulsa to handle the field operations in the Mid-Continent. The company is understood to be planning an expansion program in this territory as soon as possible. The company's offices will be at 519 Exchange National Bank building.

CISCO, Tex.—P. C. Dean, geologist, with headquarters at 300 W. Broadway here, and Albert Adkisson, engineer, are opening an office at Eastland, Tex. in the Texas State Bank Bldg. They will operate in the central west and west Texas fields.

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Increasing Oil Recovery by Applying Vacuum to Wells

By Lester C. Uren

Professor of Petroleum Engineering, University of California

THE two previous articles of this series have been concerned with a method of oil production in which gas pressure is applied to the oil reservoir rock to increase the recovery of petroleum from partially depleted oil pools. When this process is applied, the natural gas pressure originally associated with the oil has generally been exhausted to such an extent that there is no longer sufficient natural energy to cause additional movement of oil into the wells.

In this condition, the radius of drainage of the wells is zero, the differential pressure between the sand and the wells having diminished to a point where it is no longer able to overcome the sand resistance, and all forces are in equilibrium. Restoration of pressure within the sand by artificial means increases the differential pressure, so that oil left gas-drained in the reservoir rock is again brought under the influence of some well and flows toward it.

Theoretical Aspects of Vacuum as Applied to Oil Sands in Stimulating Oil and Gas Recovery

Realization of the fact that it is the difference between the pressure existing in the reservoir rock and that within the well which causes oil to flow will aid in arriving at a proper conception of the influence of vacuum when applied to oil wells to stimulate recovery. Here, as in the case of applying pressure to the sand, we increase the rate of flow of oil by increasing the differential pressure between the sand and the well; but in the case of vacuum, we subtract pressure from that normally existing in the well instead of adding it to the sand. Within the pressure limits afforded by vacuum, the result obtained is identical with that secured by increasing the pressure in the sand a like amount.

In addition to the increased differential pressure between the sand and the well, made possible through the use of vacuum, the evacuation of gas and vapor from the oil-drained spaces of the reservoir sand into the wells, encourages great quantities of gas and vapor to escape from solution in the oil, with the result that the recovery of condensable hydrocarbon vapor is greatly stimulated. The partially drained sands are left wet with oil after natural drainage, and great quantities are held within the minute capillary openings and reëntrant angles between grains.

THESE films, thus spread out over enormous areas, are left saturated with dissolved gas and low-boiling hydrocarbons capable of assuming the vapor phase on slight reduction of pressure. Evacuation of the gas and vapor from the oil-drained spaces, together with the reduction in pressure, causes a large part of the high vapor-pressure components of the oil to escape from these surface films. Large volumes of gas and vapor, so liberated, sweeping through the pore spaces of the sand toward the outlet wells, carry considerable oil along through the drainage channels, and thus the recovery of oil as well as that of gas and condensable vapor, is increased.

IT SHOULD be remembered that the gas energy brought to bear in driving oil from a sand is a product of both the pressure and the gas volume. In the vacuum process, the increase in pressure is slight, but the increase in gas volume may be large; hence the energy thus made available for moving oil is proportionately increased. In one sense, the vacuum process is comparable with the air or gas-drive method of recovery, in that the additional production secured is primarily due to the passage of gas flowing under a pressure differential through the reservoir sand toward the well outlets.

The "evaporation effect" due to application of vacuum, is emphasized by Lindsly and Berwald[1], who point out that a cubic foot of average oil sand presents a grain surface of upwards of 2,000 square feet, and that if the sand is 30 feet thick, the equivalent of an acre foot, having a grain surface of 87,120,000 square feet, or about 3.1 square miles, is exposed within 21.5 feet of the walls of the well. That is, if vacuum applied to a well is successful only in influencing an area 21.5 feet in radius about the well, it may draw vapor from a sand surface of 3.1 square miles. Under favorable sand conditions, it is quite certain that the reduced pressure may influence a much greater area. Assuming that the reduced pressure, after

[1]Lindsly, B. E., and Berwald, W. B., "The Use and Limitations of Vacuum in the Recovery of Oil," Transactions, Am. Inst. Mining and Metall. Engs., Tulsa meeting, Oct. 1926.

Water Flooding Next Topic of Uren

THE next two articles in this special series of five which Lester C. Uren, head of the department of petroleum engineering of the University of California and recognized authority on production methods, is writing exclusively for NATIONAL PETROLEUM NEWS on the subject of artificial means of stimulating recovery will take up recovery of oil from partially depleted reservoir sands by water flooding.

The first article will go into the theoretical aspects of water flooding, while the second will present a study of results obtained through its practical application. Data from oil company operations will be presented.

The present article by Uren is on application of vacuum to wells to stimulate recovery. First two articles in this special series of five discussed restoring gas pressure as a means to increase recovery.

Uren's articles will continue to appear exclusively in NATIONAL PETROLEUM NEWS twice a month. These articles have developed a new way of writing about improved production methods for the practical oil man, too busy to do the necessary reading of engineering developments, research in chemistry, and the experimental work of numerous private companies and institutions to keep up with progress in this subject.

The Uren articles review past developments in particular phases of producing operations, in all fields of research and experiment; give references to earlier articles; give data and experience of oil companies in practical operation; and comment also on economic effects of these developments on the industry.

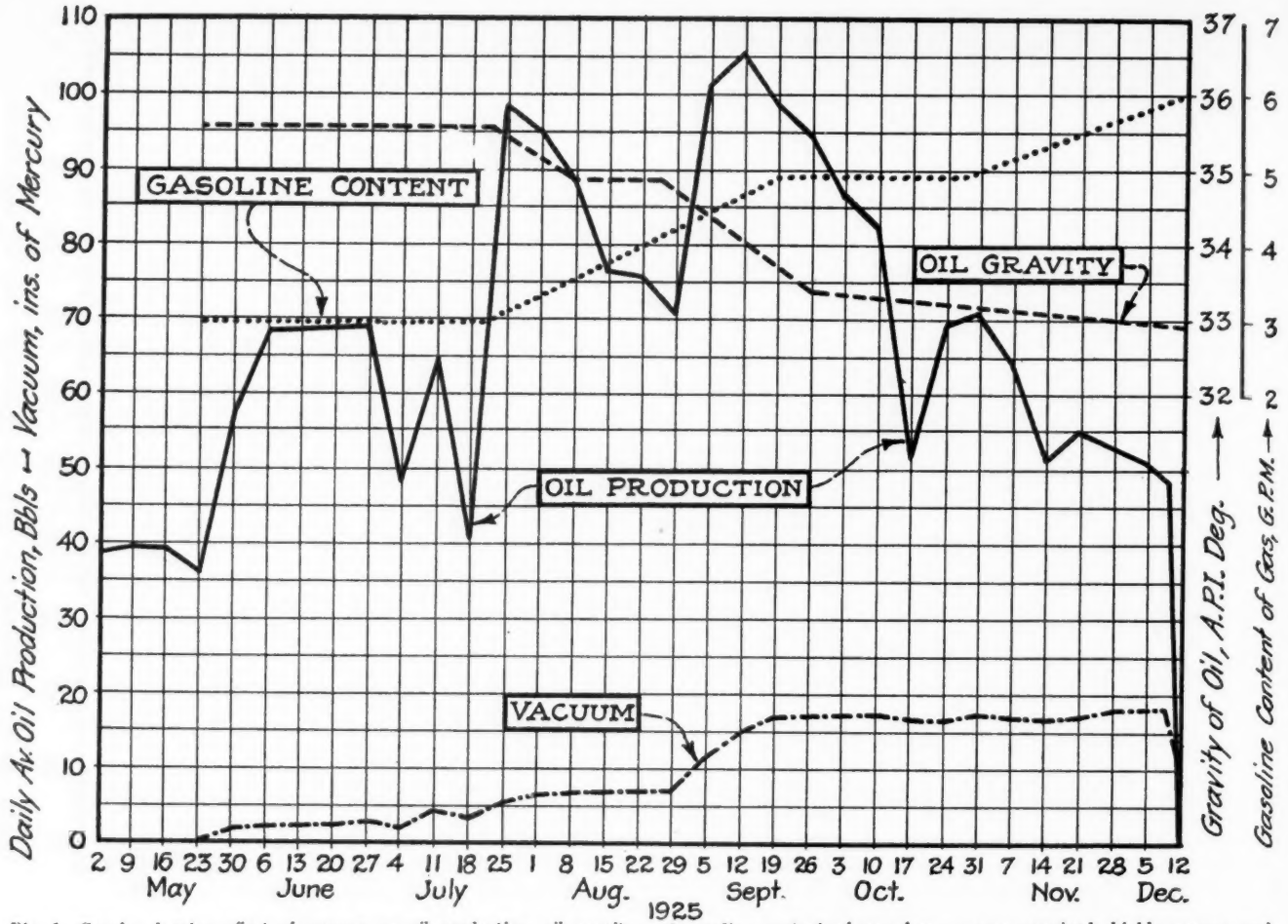


Fig. 1—Graphs showing effect of vacuum on oil production, oil gravity and gasoline content of gas from a coarse-grained, highly porous sand. (After B. E. Lindsly and W. B. Berwald.)

prolonged application of vacuum, extends over a normal drainage radius of say 300 feet, the area of sand surface made tributary to the well is upwards of 608 square miles.

IT IS possible that gas and vapor liberated from the oil by application of vacuum is effective in releasing oil, not only by its movement through the sand, but also by reduction of the surface tension of the residual oil. The surface tension of crude petroleum probably varies to some extent with the character of gas or vapor with which it is in contact, and it is likely that oil in contact with butane, pentane or hexane has a somewhat lower surface tension than when it is in contact with methane or air. If the surface tension is materially reduced by formation of an atmosphere of these "wet" gases, less oil will be retained by capillarity and the force of adhesion might also be influenced. On the other hand, extraction of the lighter components of the oil will leave the residual oil somewhat denser and more viscous, a condition which would tend toward thicker adhesive films, and therefore greater retention due to adhesion. These are uncertain points on which little data is to be found. They would apparently offer a promising avenue of research.

Vacuum is a term that is rather loosely applied, signifying a pressure below the prevailing atmospheric pressure. Absolute vacuum is not attainable in oil-field operations, and we are therefore concerned with relative or partial vacuum, the extent to which the partial pressures attained approach absolute zero pressure, depending upon the sand conditions, the security of the transmission lines and wells against leakage, and the mechanical efficiency and capacity of the vacuum pump employed.

We customarily express the degree of vacuum attained in inches of mercury or pounds pressure below atmospheric. The normal pressure of one atmosphere at sea level is 14.7 pounds per square inch, a pressure equivalent to that developed by a 30-inch column of mercury. (One inch of mercury is the equivalent of 0.49 pounds). Variations in atmospheric pressure occur frequently, and the vacuum developed is always expressed with respect to the prevailing atmospheric pressure, which may be somewhat more or less than normal. As is well known, the barometric pressure decreases as the altitude above sea-level increases. Consequently, a vacuum of say, 10 inches of mercury at a high altitude, such as that of the Salt Creek oil field of Wyoming, where the normal atmospheric pressure is only 12.3 pounds, is a considerably lower pressure than a 10-inch vacuum applied in the Salt Lake Field of California, where the wells are situated but a few feet above sea level. The maximum vacuum practically attainable in oil-field operations, is about -12-pounds, or 24.5 inches of mercury. Such a negative pressure is unusual however, in practical operations, and minus 7 or 8 pounds (14.3" to 16.3" of mercury) is a better average working figure.[2]

CHANGES in the character of the oil and the gas are a matter of common observation wherever oil is produced under the influence of vacuum. The gasoline content of the gas in many instances, is increased to as much as 7 gallons per thousand cubic feet. The density of the oil, on the other hand, is increased, being in some instances as much as 3° lower in A. P. I. gravity after application of vacuum than before. Lindsly and Berwald, in a laboratory study of these effects, subjected a barrel of Burbank, Okla., crude to varying degrees of vacuum, while the oil was mechanically stirred.[3] After carrying the vacuum up to 26" of mercury (12.7 pounds below atmospheric pressure), it was found that 78 cubic feet of gas had been evolved, which yielded gasoline at the rate of

[2]McDonald, H. J. C., "Effect of Vacuum on Producing Wells", *Oil & Gas Journal*, April 9, 1925, page 56.

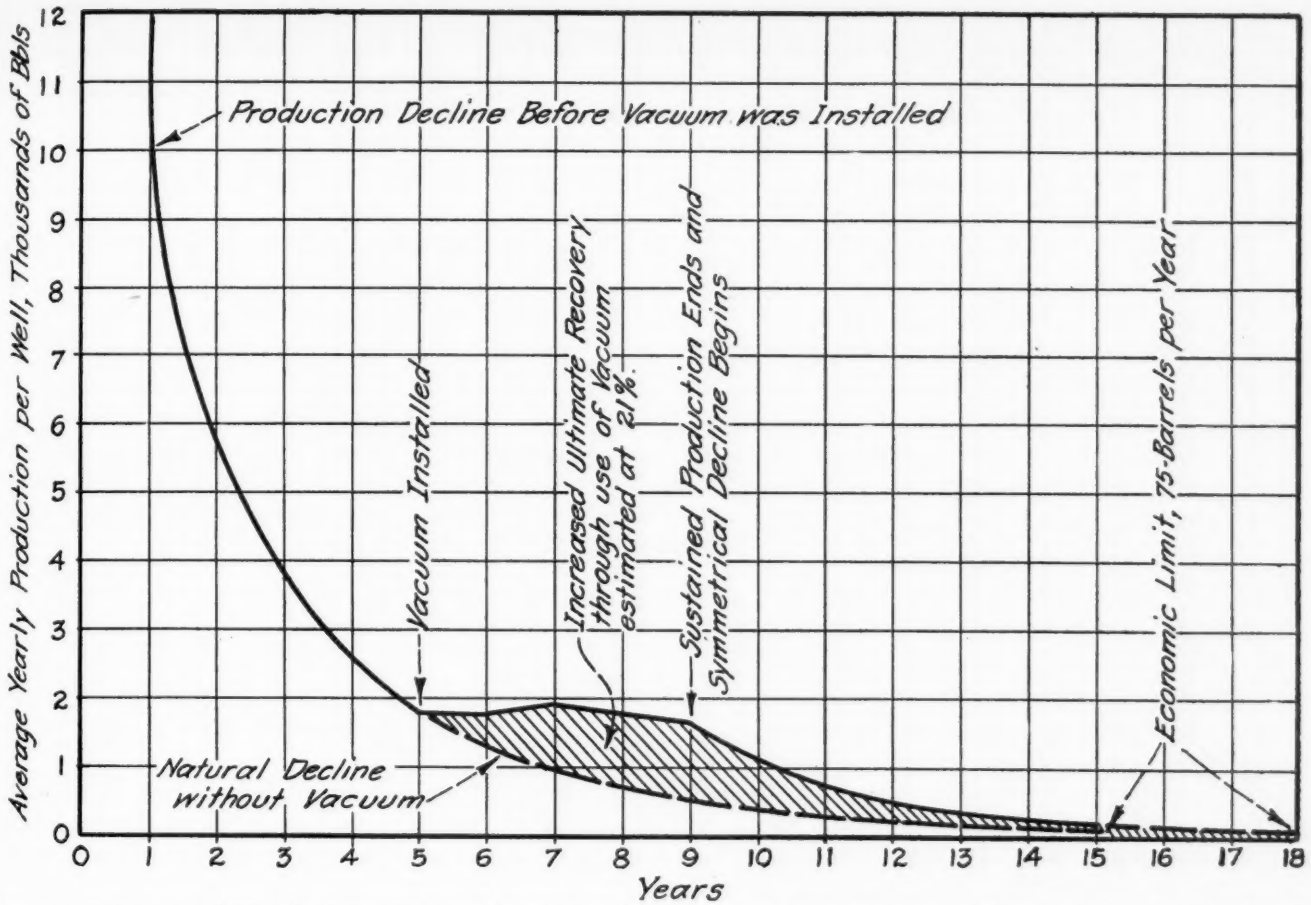

Production Decline Before Vacuum was Installed
Vacuum Installed
Increased Ultimate Recovery through use of Vacuum estimated at 21%.
Sustained Production Ends and Symmetrical Decline Begins
Economic Limit, 75-Barrels per Year
Natural Decline without Vacuum
Average Yearly Production per Well, Thousands of Bbls
Years

Fig. 2—Graphs showing increase in oil recovery from 368 wells in the Glenn Pool, Oklahoma, through application of vacuum. (After W. W. Cutler, Jr.)

11.2 gallons per thousand cubic feet. The oil, originally 40.1° A. P. I., was reduced to 3.1° in density, 5.9 per cent being lost by evaporation.

COMPARABLE results have been secured in field tests.[1] Figure 1, for example, presents results of a field test in which vacuum was applied to a well over 7 months. Toward the end, a vacuum as high as 18 inches of mercury was obtained. When vacuum was first applied, production was at once increased from about 38 barrels a day to 68 barrels; though the vacuum developed was only 3 inches of mercury. Subsequently, at higher vacuum (about 17 inches) the production attained a maximum rate of 105 barrels per day. The well produced from a very coarse-grained and porous sand, associated with a lime formation, and was quite sensitive to small changes in operating conditions, as evidenced by the variable characteristics of the oil-production graph. As the vacuum increased, the A. P. I. gravity of the oil was reduced from 35.6° to 32.9°, while the gasoline content of the gas increased from less than 3 gallons per thousand cubic feet, to 6 gallons. In this test it was definitely proven that the effect of the vacuum extended as far from the vacuum well as another well situated 1500 feet distant[2].

Many other similar tests have been conducted by Messrs. Lindsly and Berwald under the auspices of the U. S. Bureau of Mines, in some cases with beneficial results, and in other instances with indifferent success. The data secured indicate that the ability of vacuum to produce additional oil depends largely upon the texture of the reservoir rock. If the oil sand is coarse-grained, if the percentage of porosity is high, and the beds fairly continuous, vacuum will in all probability be successful in increasing the recovery of oil; but if the sand is fine-grained and the porosity is low, or if the sand is "broken" by lenses or "stringers" of shale, vacuum may have little or no effect. The character of the oil also has a controlling influence on the effectiveness of vacuum, the denser and more viscous oils responding less readily than the lighter and more mobile oils.

FIGURES 2 and 3 present graphs which illustrate the successful effects of vacuum in increasing ultimate recovery in properties in the Glenn Pool of Oklahoma. In the case illustated in Figure 2, the ultimate production was increased 21 per cent above what would have been possible without vacuum,[4] while for the properties represented in Figure 3, the ultimate recovery was increased by 9 per cent.[4] The period of stimulated recovery in these two instances extends over 10 years, though the greater part of the increased production was secured during the first five years. It is believed that these instances of successful application of vacuum in the Glenn Pool represent somewhat more favorable sand conditions than are customarily presented in the Mid-Continental oil fields.

IT seems probable the effect of vacuum is largely confined to the oil-drained spaces from which earlier production has been secured. In the "tight" sand areas that are left relatively undrained the sand surfaces are not exposed to evaporation, and consequently the dissolved gases and vapors are not vaporized as in the more open sand areas. On the other hand, it seems probable that the reduced pressure would gradually bring these tight-sand areas under influence, by slow drainage into the surrounding, more porous sands.

The prolonged drainage effects, extending in some cases over a period of many years, can be explained on the theory that the tighter sands are only slowly invaded in this way by encroachment of vacuum from sur-

[2]Lindsly, B. E., Personal communication with the writer.

[4]Cutler, W. W., "Estimation of Underground Oil Reserves by Oil-well Production Curves", U. S. Bureau of Mines Bull. 228, pp. 90-91.

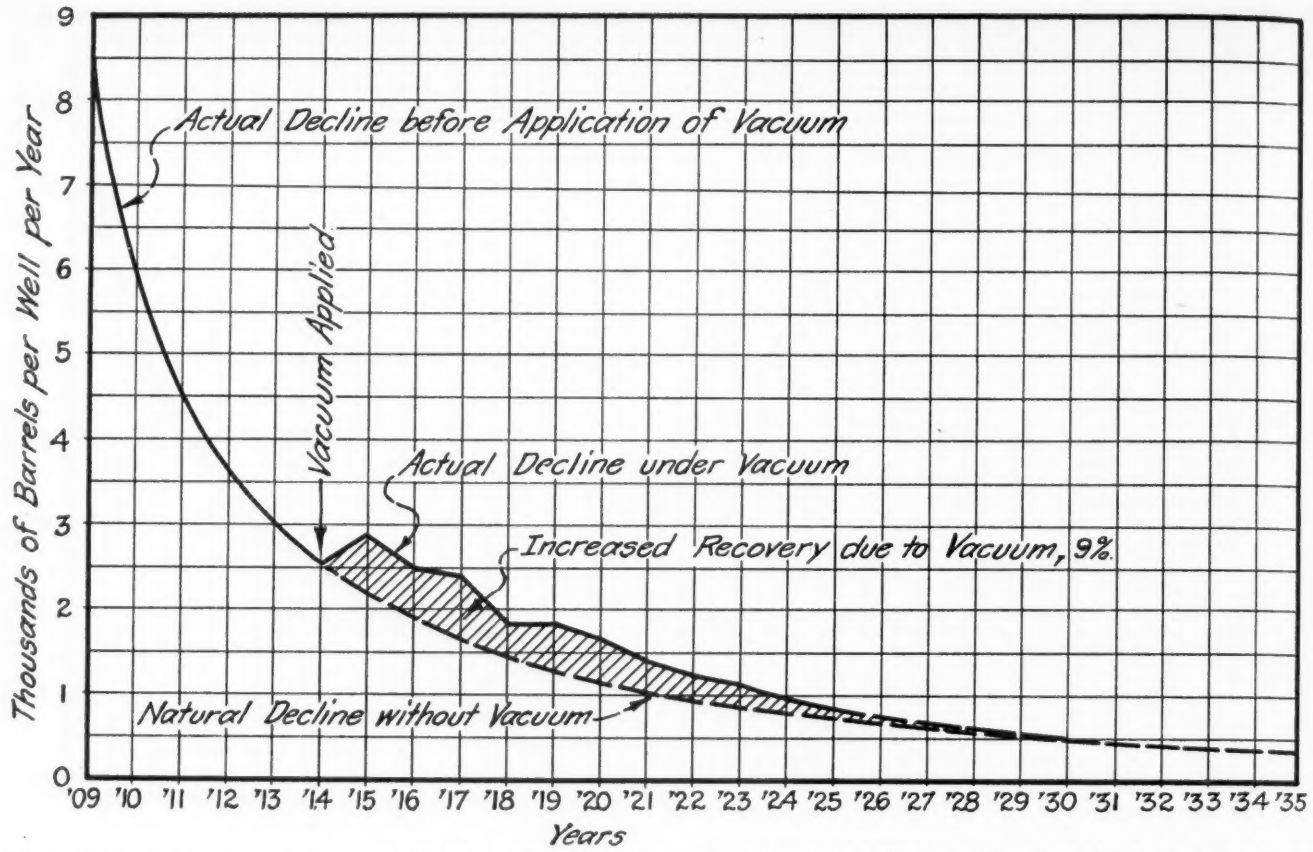


Fig. 3—Graphs showing increase in recovery, due to application of vacuum, from a group of wells in the Glenn Pool, Oklahoma. (After B. E. Lindsly and W. B. Berwald.)

rounding coarser and more porous areas. The limit of usefulness of the vacuum process is reached when all the gas and vapor available at the maximum possible vacuum attainable has been removed. In as much as this may be effectively accomplished within a few months in a small area, the continuity of the process is dependent upon new and relatively undrained bodies of sand being continually subjected to the influence of the reduced pressure.

THE radius of influence gradually extends outward from the vacuum wells, the degree of vacuum diminishing as the distance from the well increases. Movement of the gases and vapors released from the oil, without which vacuum may not be increased or maintained, occasions a definite sand resistance which varies with the rate of gas flow. When the sand resistance offered to flow of the vapors toward the well reaches the maximum of negative pressure attainable at the well (about -12 pounds) an equilibrium condition is reached and the maximum radius of influence is attained for that particular rate of flow. Reduction in the rate of flow of the vapor, however, will permit a wider radius of influence, through reduction of the sand resistance. As long as we are content with a smaller rate of production, the drainage radius may be theoretically extended indefinitely. The maximum radius of influence is thus conditioned by the minimum economic rate of production.

Vacuum at times seems to exercise a selective action on the gas and vapor, which are freely withdrawn from the sand, accompanied however by comparatively little oil. It seems probable in such a case, that the gas and vapor "by-pass" the oil, flowing through the oil-drained channels above the general oil surface, so that the energy of the moving gas cannot be effectively brought to bear on the residual oil in the sand. It is probably also true that too rapid development of vacuum conditions will result in the vapors "blowing through" the oil, large quantities of gas with comparatively little oil reaching the recovery well. Slow application and gradually increasing intensity of vacuum would probably be more effective from the stand-point of oil recovery.

There is a certain period in the productive life of some pools in which vacuum may be profitable, though at earlier periods it may be unprofitable. Gas flows more readily through sand than oil and an increased pressure differential will often accentuate this tendency of gas to monopolize the drainage channels. There is a close analogy between this conception and the general theory of back-pressure.[5] When gas pressure is high, the gas pushes through the sand toward the well outlets, literally crowding the oil aside, so that the gas-oil ratio is high. Application of back-pressure, reducing the differential pressure somewhat, minimizes this effect. When back-pressure is no longer necessary, application of vacuum may produce the same effect through excessive increase in the pressure differential. Application of vacuum while the gas pressure is still high, may then, induce a higher gas-oil ratio, and in some cases, a decrease in ultimate recovery probably also results in comparison with what might be secured by natural recovery.

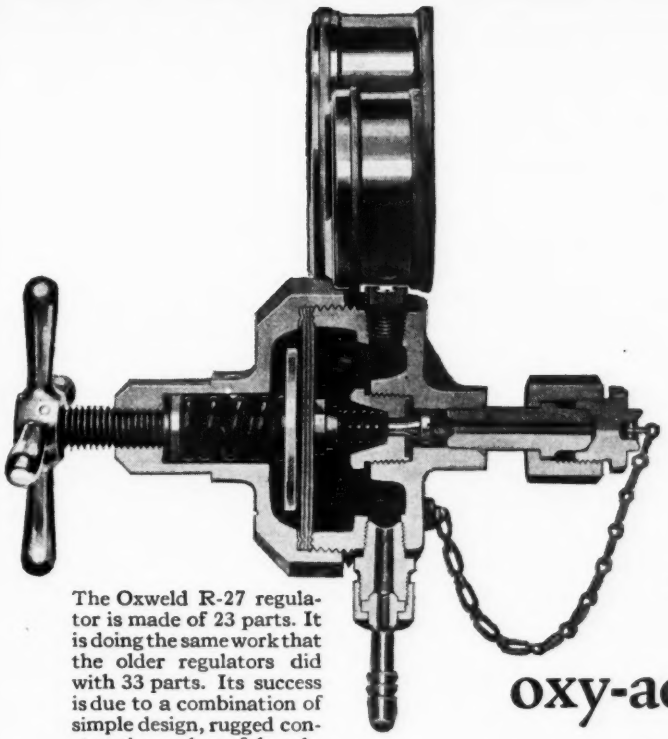
Practical Aspects of Vacuum Pumping

THE vacuum process is one that has become well established in the older American oil fields. The method was used in the Triumph Pool of Pennsylvania, as early as 1869, only 10 years after the completion of the first American oil well,[6] and later attained extensive use in the oil-fields of the Appalachian and Mid-Continent regions. Many thousands of wells are now operated under vacuum, and have been for many years, and yet it is only within very recent years that careful technologic studies have been made to determine the real efficiency of the process.

In applying vacuum to wells, they are equipped with plunger pumps of ordinary pattern, with tubing and rods extending through gas-tight casing-heads. One of the side outlets of each

[5]Uren, L. C., "Methods of applying Back-pressure and Effect on Recovery", NATIONAL PETROLEUM NEWS, March 2, 1927, p. 149.

[6]Carll, J. F., Seventh Report on the Oil and Gas Fields of Western Pennsylvania, Second Penn. Geological Survey, Vol. III.



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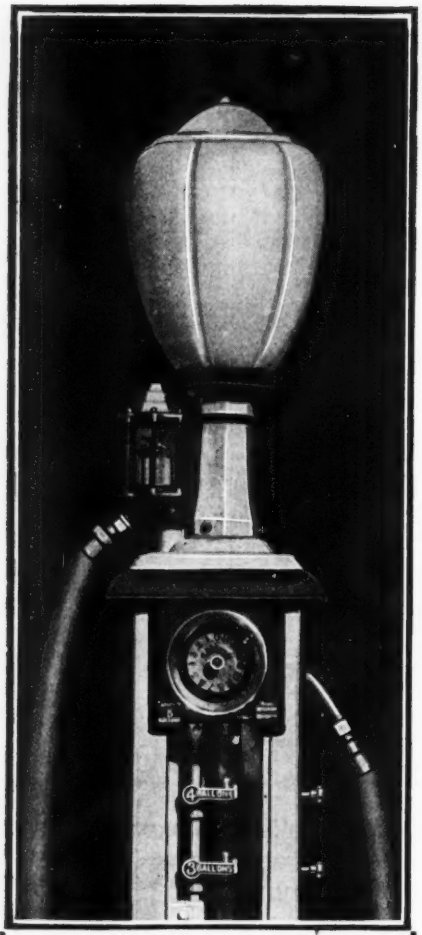

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casing-head is connected, by a system of piping, with a vacuum pump of adequate capacity, or with the intake side of a gas compressor. Often the compressors of the extraction plant used in recovering gasoline from the gas, will serve also as a means of developing vacuum on the wells. Vacuum mains extend out from the plant, laterals of smaller diameter connect with the individual wells.

EVERY precaution must be taken to avoid leakage of air into the vacuum system, particularly about the casing-heads where such leaks are most likely to occur. An effort is made to reduce friction in the mains to as low a value as possible, for pipe resistance reduces the effective vacuum developed on the sand. Even with the best possible design and the best pumping equipment, there is an inevitable loss through friction, valve inefficiency and minor leakages, -12 pounds being about the lowest pressure that may be practically maintained at the casing-heads of the wells.

There is also a further loss due to the frictional effect of moving gas between the casing-head and the productive sand. Lindsly and Berwald[1] have estimated that there will be a loss of 2.25 inches of mercury pressure (1.1 pounds per square inch) between the top and bottom of a 3,000-foot well, due to friction of flowing gas between 5 3/16-inch casing and 2-inch tubing. The frictional loss, or course, will increase with the quantity of gas flowing. For the purposes of the above computation, it is assumed that 100,000 cubic feet of gas is produced daily.

Occasionally, when the central vacuum plant is at a considerable distance from the wells on outlying portions of the property served, auxiliary pumps called "boosters", situated in the vicinity of the more remote wells, may be operated to assist the central plant in maintaining an approximately uniform vacuum in all parts of the system. In some cases, a small vacuum pump is placed at each individual well, often operated as a "tail" pump on the opposite end of the walking-beam from that to which the polished rod of the well plunger pump is attached.

THE well equipment is identical with that used in an ordinary pumping well, and operation is much the same, except that for successful results it is desirable to carry fluid level below the top of the productive sand. Generally, in ordinary pumping practice, the fluid level is not permitted to fall below the top of the sand, in order to prevent escape of large quantities of free gas from the oil-drained upper part of the sand, and to prevent paraffining of the reservoir sand where it is exposed in the wall of the well. In vacuum pumping, however, every effort is made to encourage gas movement, and the fluid level is therefore kept below the top of the oil sand in order not to interfere with escape of gas and vapor to the well, thus permitting the reduced pressure effect to work far out into the open spaces of the sand.

Bearing in mind that the greater part of the resistance to flow of the gas and vapor is in the immediate vicinity of the vacuum well, it is clear that a considerable advantage would be gained, both in oil recovery and in more effective and more extensive range of influence of the vacuum, if an enlarged cavity is formed about the well. Such a cavity might be formed in hard, brittle rocks by the use of explosives, while in relatively unconsolidated sands, the hydraulic process described in an earlier article of this series, might be employed.[7]

WHEN vacuum is applied to a well penetrating a body of unconsolidated or semi-unconsolidated sand, caving of the walls of the well is often induced and large quantities of "float" sand and shale may enter from the formation. Accumulated detrital material of this character will, in a short time, interfere seriously with continued production, requiring frequent cleaning of the walls. At such times as cleaning-out or repair jobs are in progress, the casing-head must, of course, be left open to the atmosphere, and air is drawn into the sand, driving oil away from the well. After such an interruption in service, vacuum must be applied for several days or even weeks, before the well begins to produce oil again.

Economic Aspects of Vacuum as Applied in Stimulating Oil and Gas Production

While vacuum has served a useful purpose in securing large quantities of low-pressure gas and low-boiling vapors from partially depleted oil sands, that could not be economically extracted by natural recovery methods, it is an expensive process, and it is doubtful if in many cases it would prove profitable from the standpoint of increased oil recovery alone. Considering the combined value of the gas for gasoline recovery purposes and that of the additional oil secured, however, vacuum pumping is often profitable.

The economic result may be influenced adversely when the oil is sold on a gravity basis, the loss in value of the oil due to decrease in A. P. I. gravity and to loss in volume of the oil, at times exceeding the increased revenue due to gasoline production. Once applied, vacuum must be continued, for if vacuum is taken off, the wells cease to produce entirely.

[7]Uren, L. C., "New Methods of Using Energy in Gas to Stimulate Oil Recovery", NATIONAL PETROLEUM NEWS, April 27, 1927, p. 67-77.

Summary and Conclusions

THIS article, one of a series reviewing recent progress in the development of improved processes of oil recovery, deals with a method which supplements the natural energy of the gas associated with petroleum with a form of energy developed by mechanical means.

A moderate increase in differential pressure between the sand and the well, resulting through application of vacuum to the well, coupled with extensive evacuation of gas and vapor from the sand, causes an increase in the rate of and ultimate production of oil and greatly augments the volume of recoverable condensable vapor.

The general principles controlling the operation of the process are explained and the practical details of its field application reviewed. The economic aspects of the vacuum process are also summarized.

The conclusion is reached that vacuum pumping is seldom profitable from the standpoint of increased oil production, but that it may be so if we consider also the value of the increased volume and quality of vapor for gasoline extraction purposes. It is shown that vacuum may or may not be successful in increasing oil recovery, depending chiefly upon the texture of the sand, character of oil and cost of application, it being best adapted to coarse-grained, porous sands and light oils of low viscosity. The quality of the oil is reduced through application of vacuum, the loss in volume and value of the oil at times off-setting the increased revenue derived from the gas and vapor.

From the standpoint of energy consumed in oil production, the vacuum process is found to be less efficient than the air or gas-driven method of recovery reviewed in the two preceding articles. In general there would seem to be little justification for the continued development and application of the vacuum process, except under unusual circumstances, as when natural-gasoline production by this means is particularly desirable.

If unsuccessful in increasing gross income, the use of vacuum will entail a decrease in ultimate revenue, since the operating costs by this method are considerably in excess of the cost by natural methods. The higher unit cost in this case diminishes the economic life of the well and thus reduces ultimate recovery.

APPLICATION of vacuum to his wells by one operator in a field, obligates all his neighbors and eventually all producers in the field to do likewise, for the user of vacuum takes an unfair advantage of his neighbors if they are operating under natural pressures. This consideration has led several state legislatures to pass laws prohibiting its use. In other states, the method can only be used by agreement among all operators concerned, or with the approval of state regulatory officials.

In addition to the disadvantages of the method cited above, it is said that it also encourages water incursion, the water sometimes advancing rapidly and irregularly into the areas of lower pressure.[5]

In comparing the mechanical efficiency of producing oil by vacuum in the Elliott Pool, Nowata county, Okla., with that of producing by the compressed gas-drive method in the same field, Lindsly finds that the gas-drive method is the more efficient, 3.6 H. P. being necessary to deliver one barrel of oil daily by vacuum operation, while by the air-drive method, one barrel is produced daily with only 2 H. P. The compressed air method would therefore seem to be 80 per cent more efficient from this standpoint, than the vacuum process.[5]

[5]Lindsly, B. E., "Application of Compressed Air to the Elliott Pool, Nowata County, Oklahoma", U. S. Bureau of Mines, Repts. of Investigations, No. 2778, October, 1926.

Will Study the Science of Oil Marketing

NORMAN, Okla., July 8.—The economics of petroleum, in which there has been little research thus far, will be the subject of research work the coming year by Leonard Logan, assistant professor of business administration at the University of Oklahoma, who has been granted leave of absence to continue work toward his doctor's degree at the University of Wisconsin. Logan will be an assistant on the Wisconsin faculty.

For some time Logan has been doing research in the field of marketing petroleum products, and he hopes to arrive at a solution of some of the acute problems of an economic nature, facing the oil industry.

Logan's courses in the economics of petroleum at the University of Oklahoma will be taught in his absence by Edward C. Petty, graduate of the school of business, and now an economist with a state oil company.

CHICAGO—A daughter, Barbara, was born June 13 to Mr. and Mrs. R. M. McNeily. Mr. McNeily is with Refiners Petroleum Co., Chicago.

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May Gasoline Demand Exceeds Million Barrels a Day for First Time

By Roger B. Stafford
N. P. N. STAFF WRITER

CLEVELAND, July 6

GASOLINE consumption and crude oil production reached new peaks in May, the U. S. Bureau of Mines petroleum statistics show. Gasoline shipments from refineries to the domestic trade and exports exceeded a million barrels daily average for the first time in history. Production of crude oil rose to 2,460,100 barrels daily average, an increase of 40,400 barrels over the April daily average which was the previous record.

Other important points in the bureau's May report are:

1. Decrease of 3,770,000 barrels in gasoline stocks in month.

2. Rise in domestic demand for gasoline to 857,400 barrels daily average, an average exceeded in only one other month—August, 1926—when average was 868,100 barrels.

3. Increase in exports of gasoline to 144,100 barrels daily average, a volume exceeded only in May, 1926, when average shipments abroad were 146,000 barrels a day.

4. Decline in rate of output of gasoline although average volume of crude charged to stills was less than in April.

5. Increase of 8,710,000 barrels in stocks of crude oil; stocks in California decreased 411,000 barrels, but east of California stocks rose 9,121,000 barrels. Decline in California stocks was all refinable crude; heavy crudes accumulated.

6. Increase of 6,622,000 barrels in stocks of both crude and refined oils.

7. Decrease in kerosene stocks although fall in exports almost balances rise in domestic demand.

8. Decrease of 165,000 barrels in stocks of lubricating oils when domestic and foreign demand increase, and output is curtailed slightly.

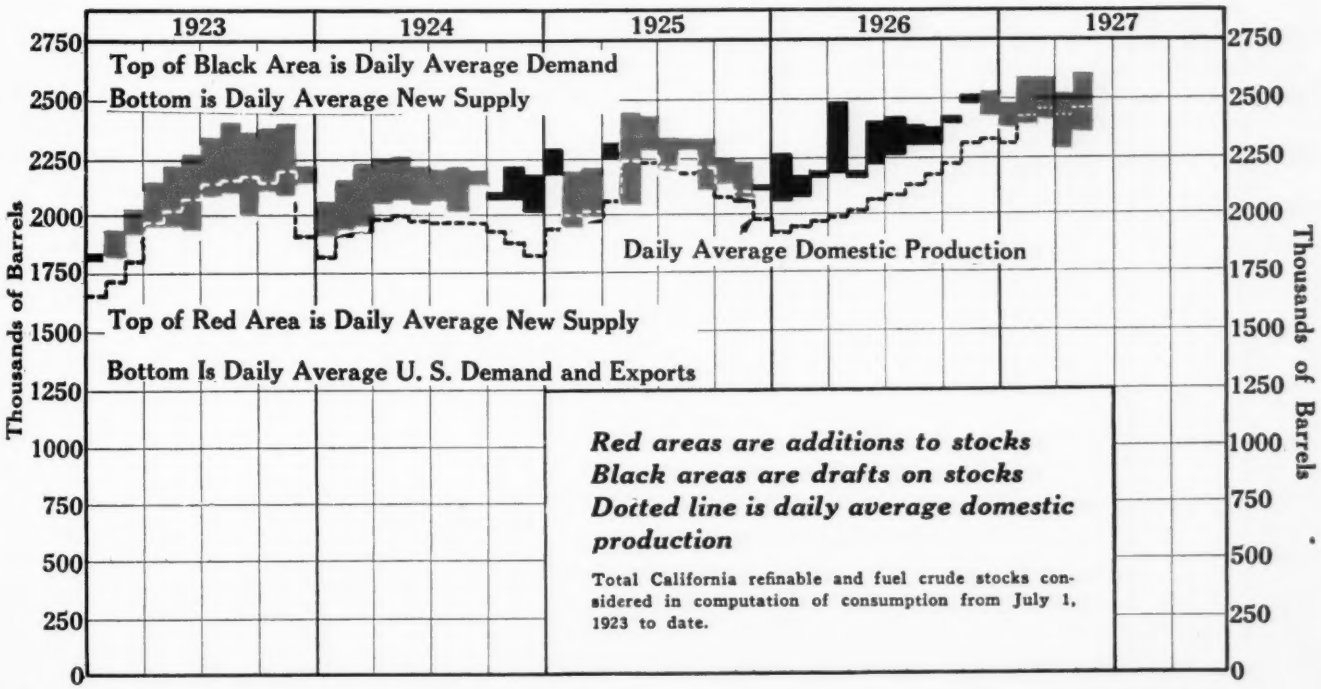
9. Wax stocks fell 3,690,000 pounds, the first decline since last September. Exports were 193,000 pounds less than April exports but domestic shipments were 310,000 pounds more than April domestic shipments. For first time in two years domestic demand exceeded foreign demand.

10. Gas and fuel oil stocks east of California rose 2,327,000 barrels. Average output of these oils was slightly more than in April. Consumption figures are not available because fuel oil stocks in California are included in figures for stocks of heavy crudes.

11. Output of natural gasoline was slightly less than in April but stocks increased 138,000 barrels.

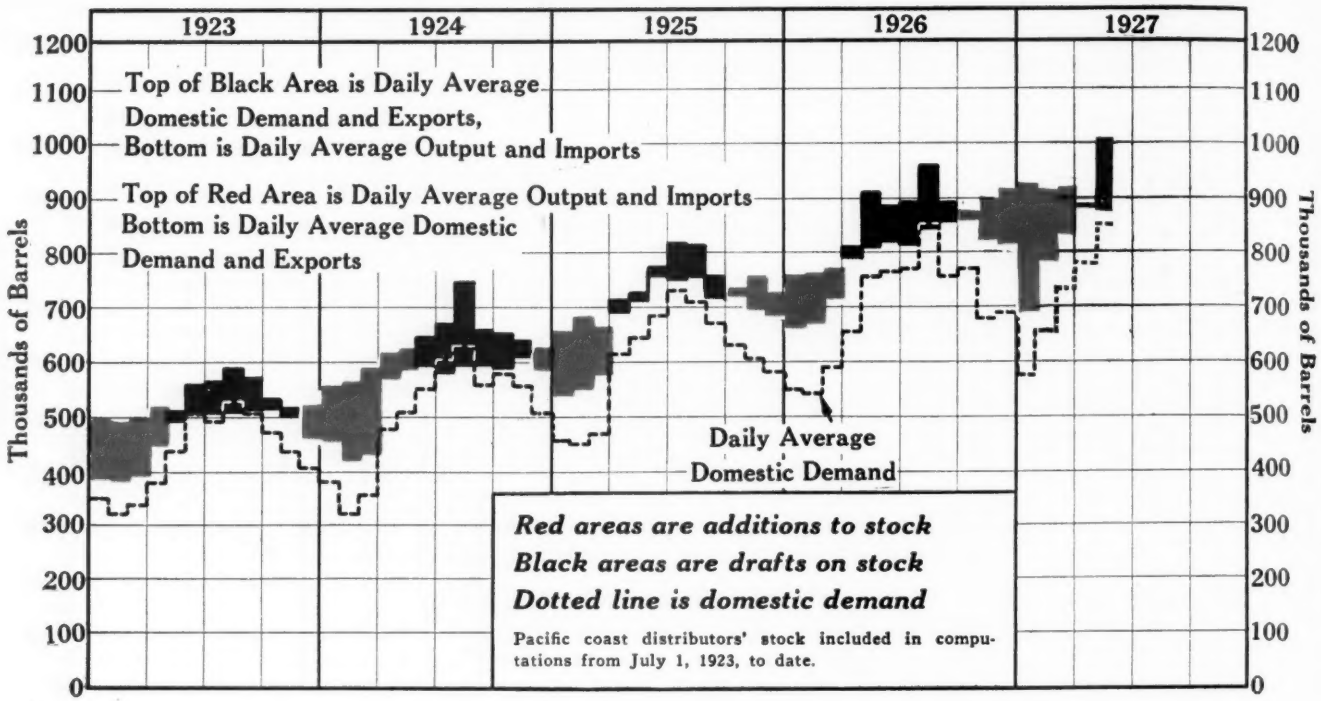
THE 558,460,000 barrels of crude and refined oils in storage May 31 represented 219.6 days' supply at the May rate of foreign and domestic demand for all oils. The 551,838,000 barrels in storage April 30 represented 226.3 days' supply at the April rate of foreign and domestic demand. The 531,531,000 barrels of oil on hand May 31, 1926, represented 221.6 days'

Crude Oil Production and Demand



May domestic production	2,460,100 Bbls. daily av.
May imports	147,000 Bbls. daily av.
Total new supply	2,607,100 Bbls. daily av.
May indicated demand east of California	1,638,800 Bbls. daily av.
May indicated California deliveries	642,500 Bbls. daily av.
May exports	44,800 Bbls. daily av.
Total indicated demand	2,326,100 Bbls. daily av.
Stocks in pipe lines and at tank farms east of California, May 31, 1927	270,232,000 Bbls.
Stocks at refineries east of California	36,498,000 Bbls.
Stocks of foreign crude not at refineries	286,000 Bbls.
California stocks 20° and lighter	27,143,000 Bbls.
California stocks heavier than 20°	90,289,000 Bbls.
Total stocks May 31, 1927	424,448,000 Bbls.
Increase in stocks in May	8,710,000 Bbls.
Total stocks May 31, 1926	409,733,000 Bbls.

Gasoline Situation by Districts—Barrels



May domestic output	864,100 Bbls. daily av.	May exports	144,100 Bbls. daily av.
May imports	15,800 Bbls. daily av.	Total indicated demand	1,001,500 Bbls. daily av.
		May 31, 1927, stocks	48,609,000 Bbls.
Total new supply	879,900 Bbls. daily av.	Decrease in stocks in May	3,770,000 Bbls.
May domestic shipments	857,400 Bbls. daily av.	Stocks May 31, 1926	42,916,000 Bbls.

supply at the rate of demand then.

Exports and imports of both crude and refined oils were larger in May than in April. Domestic demand for crude oil and products, due principally to increased gasoline demand, rose from 2,068,000 barrels daily average in April to 2,114,000 barrels average in May. Foreign demand accounted for the rise in total demand from 2,438,000 barrels daily average in April to 2,542,000 barrels average in May.

Refiners indicate a tendency to keep the gasaline situation well in hand by keeping down the production. The daily average output in May was 864,000 barrels. This was the smallest average output since last October when gasoline production averaged 850,000 barrels daily.

Refiners charged more crude to stills in May than in April, daily average runs in the two months being 2,262,800 and 2,232,200 barrels, respectively. However, runs of unfinished oils—tops and cracking stock—were decreased from 110,100 barrels daily average in April to 79,600 barrels average in May. Natural gasoline used was changed but little, averaging 74,600 barrels daily average in May and 75,400 in April.

Domestic production of gasoline was only slightly ahead of domestic demand and when the bureau's June report is available it should show that domestic demand has passed domestic output. With a good export demand a sizeable dip should be taken into stocks again.

Refiners are now within striking distance of the level of gasoline stocks a year ago and with conservative plant operation should have their motor fuel reserves July 31 to the level of stocks at the end of last July. With the increased consumption this year over last year's consumption—it has been 11 per cent more in the first five months of 1927—equal stocks would mean less in terms of days' supply and likely a stronger gasoline market. However, if the flush quantity of cheap gasoline crude is an apple in the refiner's Garden of Eden, much hope for better markets this summer cannot be held. The firmer prices of the last week indicates that many refiners, particularly the Independents that are dominant figures in the spot markets realize there is something in the slogan, "More Profit per Unit Rather Than More Units for Profits."

The solution of the gasoline situation in this country seems to be strictly a domestic affair. Although domestic demand in five months gained 11 per cent over demand in the corresponding time in 1926, export shipments were 84,000 barrels or 0.4 per cent less this year than last. This does not indicate that as-

Petroleum Supply and Demand—Barrels

	May, 1927	*April, 1927	March, 1927	May, 1926
Domestic crude production: Light	66,890,000	63,227,000	65,435,000	51,422,000
Heavy	9,374,000	9,363,000	9,869,000	11,134,000
Imports of crude oil	4,557,000	4,063,000	4,434,000	4,502,000
Imports of refined oil	1,329,000	1,201,000	1,175,000	2,017,000
Total new supply of all oils	82,150,000	77,854,000	80,913,000	69,075,000
Total stocks end of preceding month	551,838,000	543,786,000	535,499,000	534,062,000
Total supply of all oils	633,988,000	621,640,000	616,412,000	603,137,000
Exports of crude oil	1,390,000	1,171,000	1,199,000	1,842,000
Exports of refined oil	11,863,000	9,917,000	9,450,000	9,817,000
Domestic demand, crude and refined	65,546,000	62,042,000	*65,396,000	62,668,000
Total demand	78,799,000	73,130,000	76,045,000	74,327,000
Total stocks end of month	558,460,000	551,838,000	543,786,000	531,531,000
Increase in stocks	6,622,000	8,052,000	8,287,000	†2,521,000
Daily average new supply	2,761,000	2,708,000	2,723,000	2,319,000
Daily average demand	2,542,000	2,438,000	2,453,000	2,398,000
Daily average excess of supply	219,000	270,000	270,000	††79,000
Crude stocks:				
East of California: Light	259,469,000	251,673,000	244,785,000	224,919,000
Heavy	47,547,000	46,222,000	45,325,000	59,438,000
In California: Light	27,143,000	29,460,000	29,568,000	37,192,000
Heavy	90,289,000	88,383,000	87,886,000	88,184,000
Total stocks of crude	424,527,000	415,738,000	407,564,000	409,733,000
Total stocks of refined	134,012,000	136,100,000	136,222,000	121,798,000

*Revised. †Decrease. ††Daily average deficiency.

sistance in lowering stocks will come from overseas; shipments have not increased although prices have touched bottom and have been slowly rising during the five months.

While domestic demand was increasing 11 per cent and foreign demand was about stationary, refiners in the five months increased their production of gasoline 13.8 per cent over production in the first five months of 1926. Stocks of gasoline were increased 9,586,000 barrels from Jan. 1 to May 31 this year, compared with an increase of 4 042,000 barrels in the same time last year.

Although domestic demand in May was the second largest in any month in history, it was only 9.7 per cent more than demand in May, 1926, or 1.3 points before the average increase for the January-May period. The 48,609,000 barrels of stocks on hand May 31 represented 48.5 days' supply at the May rate of foreign and domestic demand. The 42.916,000 barrels of stocks May 31, 1926, represented only 46.2 days' supply at the rate of shipment then. But with total May gasoline shipments to domestic distributors only 333,000 barrels less than total shipments in the peak month or a third of the daily average foreign and domestic demand in May, and another month before the season's peak demand is reached, there should be a large reduction in the days' supply figure when later data are available.

The May gasoline average output was 4.28 per cent less than the April output. Production was increased 9.72 per cent in the Indiana-Illinois district and less than 1 per cent in the Oklahoma-Kansas district, and reduced in every other district. Texas led in curtailment, output averaging more than 20,000 barrels less daily. The Rocky Mountain district which showed the largest rate of decrease, lowered output 14,000 barrels daily average.

Shipments were less in May than in April from Louisiana-Arkansas refineries due probably to the Mississippi flood but good sized gains were made by most other districts. East Coast plants increased their shipments more than a third, or 39,000 barrels to 155,903 barrels average. Shipments from California plants were increased 20,000 barrels daily average. Stocks were lowered in every district, even in Louisiana and Arkansas. In the Indiana-Illinois and Louisiana-Arkansas district stocks were lower May 31, 1927, than on May 31, 1926.

Production of gasoline by the various methods—straight run, cracking and natural gasoline—was relatively the same as in April although actual figures for districts show some shifting. Texas plants used more natural gasoline and did less cracking than in April. Rocky Mountain plants increased use of natural gasoline, reducing the relative volume of both straight run and cracked gasoline output.

Gasoline recovery in May was 33

Stocks of Crude Oil

(Domestic unless otherwise specified. Amounts in Thousands of Barrels)

AT REFINERIES

Districts	May, 1927	*April, 1927	May, 1926
East Coast:			
Domestic	7,754	7,464	7,267
Foreign	3,043	2,782	2,919
Appalachian	1,662	1,648	1,653
Indiana, Illinois, etc.	2,465	2,545	1,749
Okla., Kansas, etc.	4,301	3,922	3,825
Texas: Inland	1,196	1,173	1,227
Texas Gulf Coast:			
Domestic	8,307	8,220	6,501
Foreign	304	323	244
Arkansas, Inland Louisiana	420	408	762
Louisiana Gulf Coast:			
Domestic	4,793	6,788	6,291
Foreign	1,072	832	1,807
Rocky Mountain	1,181	1,380	1,562
U. S. East of Calif.	36,498	37,485	35,807

AT TANK FARMS, IN PIPE LINES AND ELSEWHERE THAN REFINERIES

Appalachian	6,692	6,597	6,824
Kentucky	1,288	1,212	1,779
Lima-Indiana	771	731	851
Ill.-S. W. Indiana	11,729	11,762	12,039
Okla.-Kan., Texas except Coastal	176,827	167,175	138,114
N. La.-Ark.	27,752	27,558	41,725
Gulf Coast	18,073	17,955	16,333
Rocky Mountain	27,100	26,972	30,511
East of Calif. pipe line, tank-farm	270,232	259,962	248,176
Foreign crude:			
Atlantic ports	80	109	42
Gulf ports	206	339	332
Total refinery, pipe line, and tank farm stocks east of Calif.	307,916	297,895	284,357
California:			
20° and lighter	27,143	29,460	37,192
Heavier than 20°	90,289	88,383	88,184
GRAND TOTAL	424,448	415,738	409,733

CLASSIFICATION BY GRAVITY
(Elsewhere than refineries east of California)

24° and lighter	259,469	251,673	224,919
Heavier than 24°	47,547	46,222	59,438

*Revised.

Crude Oil Production by Fields—Barrels

Fields	May Daily Average 1927	*April Daily Average 1927	May Daily Average 1926	Total Jan.-May 1927	Total Jan.-May 1926
Appalachian	83,800	84,400	76,097	12,435,000	11,415,000
Lima-Indiana	5,200	5,200	5,742	783,000	843,000
Michigan	1,300	1,300	129	175,000	14,000
Ill.-S. W. Ind.	21,300	19,600	22,806	3,255,000	3,463,000
Mid-Continent	1,494,100	1,431,500	1,118,285	215,152,000	160,760,000
Gulf Coast	137,500	137,200	87,323	21,671,000	13,361,000
Rocky Mountain	87,700	90,700	105,387	13,032,000	15,782,000
California	629,200	649,800	602,166	97,004,000	91,819,000
Total U. S.	2,460,100	2,419,700	2,017,935	363,507,000	297,457,000
Imports	147,000	135,400	138,903	21,749,000	26,055,000
Total New Supply Crude	2,607,100	2,555,100	2,156,838	385,256,000	323,512,000

*Revised

Gasoline Situation by Districts—Barrels

Districts	May Daily Avg. Output	April Daily Avg. Output	May Change %	May Daily Avg. Shipments	April Daily Avg. Shipments	May Change %	Stocks May 31, 1927	Stocks April 30, 1927	Stocks May 31, 1926	Districts
East Coast	125,806	132,033	— 4.72	155,903	116,867	+33.40	10,233,000	11,166,000	8,779,117	East Coast
Appalachian	32,548	34,200	— 4.83	39,194	38,600	+ 1.54	1,040,000	1,246,000	906,572	Appalachian
Indiana-Illinois	116,774	106,433	+ 9.72	129,548	115,733	+11.94	5,294,000	5,690,000	6,073,832	Indiana-Illinois
Oklahoma-Kan.	141,548	140,700	+ 0.60	151,323	138,833	+ 9.00	4,292,000	4,595,000	3,648,523	Oklahoma-Kan.
Texas	175,935	196,033	—10.25	192,355	188,567	+ 2.01	6,822,000	7,331,000	4,771,547	Texas
Louisiana-Ark.	61,323	62,100	— 1.25	68,129	78,500	—13.21	3,438,000	3,649,000	3,502,547	Louisiana-Ark.
Rky. Mountain	32,677	46,733	—30.08	43,935	40,967	+ 7.24	4,855,000	5,204,000	4,794,023	Rky. Mountain
California	161,355	167,668	— 3.77	189,194	168,867	+12.04	12,635,000	13,498,000	10,430,998	California
Total U. S.	847,966	885,900	— 4.28	969,581	886,934	+ 9.32	48,609,000	52,379,000	42,907,159	Total U. S.
Tex. Gulf Coast	153,839	156,667	— 1.81	179,194	149,200	+20.10	5,687,000	6,473,000	4,212,190	Tex. Gulf Coast
Lou. Gulf Coast	48,452	49,467	— 2.05	54,548	66,233	—17.64	3,318,000	3,507,000	3,418,476	Lou. Gulf Coast

Natural Gasoline and Motor Blends—Barrels

Districts	Daily Avg. Production May (Net)	Daily Avg. Production April (Net)	Stocks End of May	Stocks End of April	Motor Fuel Blends Made In May	Motor Fuel Blends Made In April	Stocks of Blends End of May	Stocks of BlendsEnd of April	Districts
Appalachian	5,530	6,587	118,833	105,714	10,905	12,476	7,333	7,024	Appalachian
Ind.-Ill., etc.	922	1,111	15,071	13,214	1,452	2,048	381	381	Ind.-Ill., etc.
Oklahoma-Kansas	36,636	35,952	415,167	337,738	131,935	133,857	26,000	27,024	Oklahoma-Kansas
Texas	20,507	20,952	278,952	*243,667	27,929	22,024	3,310	8,405	Texas
Louisiana-Arkansas	5,607	5,555	52,048	45,905	13,786	12,452	3,452	833	Louisiana-Arkansas
Rocky Mountain	3,149	3,175	12,476	10,571	5,252	5,762	3,643	2,119	Rocky Mountain
Total east of Calif.	72,351	73,332	892,547	*756,809	190,739	188,619	44,119	45,786	Total east of Calif.
California	31,490	32,381	33,548	31,214	.....	.....	24	24	California
Total United States	103,841	105,713	926,095	*788,023	.....	.....	44,143	45,810	Total United States

*Revised

per cent of the crude and unfinished oils charged to stills, compared with 34.6 per cent in April.

Kerosene production was increased in the Indiana-Illinois, Oklahoma-Kansas, and Texas districts but reduced in all others. Shipments slumped in the Louisiana-Arkansas and California districts, were little changed in the Appalachian district, and larger than in April in all other districts. Stocks were decreased in all but the Texas, Louisiana, Arkansas and California districts.

In the whole country lubricating oil

Kerosene Situation by Districts—Barrels

Districts	May Daily Avg. Output	April Daily Avg. Output	May Change %	May Daily Avg. Shipments	April Daily Avg. Shipments	May Change %	Stocks May 31, 1927	Stocks April 30, 1927	Stocks May 31, 1926	Districts
East Coast	26,839	29,000	— 7.45	36,000	31,800	+13.21	1,337,000	1,621,000	1,580,285	East Coast
Appalachian	11,032	11,400	— 3.23	11,290	11,333	— 0.38	286,000	294,000	167,619	Appalachian
Indiana-Illinois	14,710	12,900	+14.03	17,290	15,867	+ 8.97	694,000	774,000	540,857	Indiana-Illinois
Oklahoma-Kan.	25,032	24,867	+ 0.66	28,065	24,267	+15.65	509,000	603,000	400,595	Oklahoma-Kan.
Texas	36,742	31,200	+17.76	36,484	32,267	+13.07	1,781,000	1,773,000	1,706,571	Texas
Louisiana-Ark.	17,806	19,233	— 7.42	7,806	14,167	—44.90	1,706,000	1,396,000	1,040,595	Louisiana-Ark.
Rky. Mountain	4,258	6,967	—38.88	8,161	5,633	+44.88	325,000	446,000	162,119	Rky. Mountain
California	14,000	18,033	—22.36	10,387	19,200	—45.90	1,930,000	1,818,000	1,779,000	California
Total U. S.	150,419	153,600	— 2.07	155,483	154,534	+ 0.61	8,568,000	8,725,000	7,377,641	Total U. S.
Tex. Gulf Coast	29,839	25,267	+18.09	27,065	27,133	— 0.25	1,375,000	1,289,000	1,513,428	Tex. Gulf Coast
Lou. Gulf Coast	15,548	17,433	—10.81	5,226	12,300	—57.51	1,672,000	1,352,000	1,027,857	Lou. Gulf Coast

Lubricants Situation by Districts—Barrels

Districts	May Daily Avg. Output	April Daily Avg. Output	May Change %	May Daily Avg. Shipments	April Daily Avg. Shipments	May Change %	Stocks May 31, 1927	Stocks April 30, 1927	Stocks May 31, 1926	Districts
East Coast	25,871	27,933	— 7.38	25,838	24,467	+ 5.60	2,822,000	2,821,000	2,739,666	East Coast
Appalachian	11,581	11,200	+ 3.40	11,194	12,333	— 9.24	996,000	984,000	898,619	Appalachian
Indiana-Illinois	8,484	7,867	+ 7.84	9,742	8,967	+ 8.64	681,000	720,000	771,524	Indiana-Illinois
Oklahoma-Kan.	8,161	6,600	+23.65	7,645	7,367	+ 3.77	468,000	452,000	462,928	Oklahoma-Kan.
Texas	19,774	22,333	—11.46	23,774	18,833	+26.24	1,902,000	2,026,000	1,655,666	Texas
Louisiana-Ark.	1,581	2,933	—46.10	1,935	2,833	—31.70	117,000	128,000	112,714	Louisiana-Ark.
Rky. Mountain	1,806	1,767	+ 2.21	1,774	2,133	—16.83	126,000	125,000	182,690	Rky. Mountain
California	7,419	6,533	+13.56	8,098	5,533	+46.36	899,000	920,000	832,000	California
Total U. S.	84,677	87,166	— 2.86	90,000	82,466	+ 9.14	8,011,000	8,176,000	7,655,807	Total U. S.
Tex. Gulf Coast	18,903	21,533	—12.21	22,968	17,633	+30.26	1,869,000	1,995,000	1,622,166	Tex. Gulf Coast
Lou. Gulf Coast	1,581	2,900	—45.48	1,935	2,800	—30.89	117,000	128,000	112,405	Lou. Gulf Coast

Gas and Fuel Oil—Situation by Districts—Barrels

Districts	May Daily Avg. Output	April Daily Avg. Output	May Change %	May Daily Avg. Shipments	April Daily Avg. Shipments	May Change %	Stocks May 31, 1927	Stocks April 30, 1927	Stocks May 31, 1926	Districts
East Coast	179,451	171,733	+ 4.49	170,452	150,533	+13.23	6,866,000	6,587,000	4,918,690	East Coast
Appalachian	17,516	19,033	— 7.97	16,839	17,767	— 5.22	856,000	835,000	512,571	Appalachian
Indiana-Illinois	61,161	55,100	+11.00	56,419	51,800	+ 8.92	1,108,000	961,000	963,214	Indiana-Illinois
Oklahoma-Kan.	92,355	90,000	+ 2.62	89,161	88,200	+ 1.09	4,572,000	4,473,000	3,653,547	Oklahoma-Kan.
Texas	207,677	200,933	+ 3.36	189,968	186,467	+ 1.88	8,419,000	7,870,000	6,889,261	Texas
Louisiana-Ark.	88,290	103,333	—14.56	50,387	103,300	—51.22	3,683,000	2,508,000	2,595,166	Louisiana-Ark.
Rky. Mountain	19,677	19,867	— 0.96	17,839	22,900	—22.10	555,000	498,000	1,308,809	Rky. Mountain
California	414,484	401,867	+ 3.14	.....	.....	.....	.....	.....	.....	California
Total U. S.	1,080,611	1,061,866	+ 1.77	1,005,548	1,022,833	— 1.69	26,059,000	23,732,000	20,841,259	Total U. S.
Tex. Gulf Coast	161,548	155,100	+ 4.16	147,097	142,033	+ 3.57	7,106,000	6,658,000	5,908,594	Tex. Gulf Coast
Lou. Gulf Coast	49,742	62,767	—20.75	15,387	62,433	—75.35	2,980,000	1,915,000	1,834,166	Lou. Gulf Coast

Coke, Asphalt, Miscellaneous Products

	Coke Output (Tons)	Coke Stocks (Tons)	Asphalt Output (Tons)	Asphalt Stocks (Tons)	Miscel. Products Output (Bbls.)	Miscel. Products Stocks (Bbls.)	Unfin. Oil Output (Bbls.)	Unfin. Oil Stocks (Bbls.)	Losses (Bbls.)	
January, 1926	73,701	230,566	162,383	174 564	491,652	1,063,619	2,097,000	37,880,000	1,995,000	January, 1926
February	64,105	210,247	152,468	182,063	481,428	1,073,238	2,340,500	28,808,000	1,767,000	February
March	80,689	219,820	210,596	195,052	597,810	1,217,119	2,195,928	39,098,000	2,059,000	March
April	76,031	216,163	198,598	239,953	572,381	1,138,095	2,481,952	38,785,000	1,982,000	April
May	79,982	234,025	248,390	229,819	779,310	1,210,428	2,756,024	38,681,000	2,270,000	May
June	81,326	246,707	300,970	200 881	784,476	1,010,381	2,767,000	40,081,000	2,308,000	June
July	83,358	260,727	284,196	184 853	800,310	897,452	2,927,214	38,527,000	2,419,000	July
August	89,100	277,668	305,944	200 175	733,000	858,000	2,848,000	39,822,000	2,605,000	August
September	95,111	287,546	308,572	188,512	749,000	835,000	2,721,000	39,500,000	2,492,000	September
October	87,946	287,354	323,348	187,845	738,000	863,000	2,790,000	40,006,000	2,437,000	October
November	91,459	285,905	215,973	166,788	661,000	1,030,000	2,455,000	38,770,000	2,267,000	November
December	92,500	290,582	213,697	193,331	644,000	1,100,000	2,399,000	38,829,000	2,288,000	December
1926, Total	995,308	.....	2,922,788	.....	8,030,000	.....	31,240,000	.....	26,928,000	1926, Total
January, 1927	92,914	287,394	191,180	215,337	511,000	1,189,000	2,473,000	*39,287,000	2,367,000	January, 1927
February	88,102	294,682	172,685	234,450	546,000	1,282,000	2,729,000	38,986,000	2,091,000	February
March	98,163	325,521	222,309	235,251	525,000	1,356,000	2,412,000	39,392.000	2,369,000	March
April	88,404	318,529	273,767	219,502	561,000	1,410,000	1,978,000	38,095,000	2,237,000	April
May	87,900	329,400	319,000	222,500	599,000	1,368,000	1,809,000	37,760,000	2,599,000	May

Daily Average Runs to Stills—All Oils—Barrels

	East Coast	Appala.	Ind.-Ill.	Okla.-Kans.	Texas	La.-Ark.	Rocky Mt.	Calif.	Total U. S.	
January, 1926	334,742	73,516	185,709	261,903	426,129	196,484	87,548	558,097	2,120,900	January, 1926
February	360,036	78,428	192,964	256,857	434,674	200,357	96,250	549,821	2,169,400	February
March	369,032	74,677	187,419	250,742	422,774	203,839	98,355	563,228	2,176,500	March
April	365,400	77,133	203.033	266,000	451,667	205,867	98,733	557,900	2,225,200	April
May	373,516	81,677	211,065	293,903	431,451	199,161	101,322	588,613	2,280,700	May
June	382,800	85,433	211,467	293,267	446,867	207,433	107,033	574,033	2,308,300	June
July	418,742	83,097	210,193	292,645	448,516	206,839	102,355	575,193	2,337,600	July
August	395,935	87,613	208,677	300,484	446,484	211.129	106,903	599,645	2,356,900	August
September	404,680	86,667	212,300	300,167	452,900	213,000	109,333	607,867	2,386,833	September
October	427,935	87,645	208,710	279,645	482,935	210,612	113,323	587,645	2,398,500	October
November	462,200	86,567	214,600	288,800	480,466	209,033	108,566	585,633	2,435,866	November
December	442,968	84,838	209,355	284,516	516,354	226,903	102,613	589,322	2,456,870	December
January, 1927	408,355	82,581	206,226	278,258	517,160	228,516	103,161	616,516	2,440,774	January, 1927
February	412,714	86,928	197,785	295,964	504,642	228,107	103,321	633,108	2,462,571	February
March	439,387	83,097	209,161	283,548	479,806	224,903	103,290	597,839	2,421,032	March
April	411,367	84,400	204,067	286,067	491,567	224,400	100,500	615,333	2,417,701	April
May	413,516	82,000	226,677	293,581	494,806	212,129	75,839	618,452	2,417,000	May

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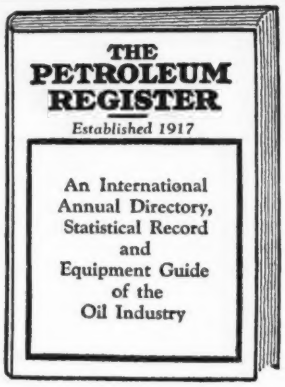

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PETROLEUM
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Gasoline Demand and Supply—Barrels

	Production	Imports	Exports	Domestic Shipments	Stocks End of Month
January, 1926*	23,208,000	384,000	3,361,000	17,582,000	41,524,000
February	21,259,000	408,000	3,245,000	15,814,000	44,132,000
March	23,868,000	517,000	3,094,000	19,302,000	46,121,000
April	24,296,000	454,000	4,256,000	20,848,000	45,767,000
May	25,271,000	621,000	4,530,000	24,213,000	42,916,000
June	24,946,000	464,000	3,744,000	23,803,000	40,779,000
July	25,504,000	460,000	3,702,000	24,752,000	38,289,000
August	25,942,000	674,000	3,572,000	26,912,000	34,421,000
September	25,360,000	258,000	3,853,000	22,929,000	33,257,000
October	26,337,000	874,000	2,783,000	23,973,000	33,712,000
November	26,245,000	486,000	3,920,000	20,618,000	35,905,000
December	27,498,000	452,000	3,413,000	21,419,000	39,023,000
*1926 Total	299,734,000	6,052,000	43,473,000	262,165,000	
January, 1927	27,960,000	520,000	3,557,000	17,888,000	46,058,000
February	25,024,000	416,000	3,544,000	18,240,000	49,714,000
March	27,886,000	493,000	3,219,000	22,646,000	52,410,000
April	26,577,000	377,000	3,614,000	23,371,000	52,379,000
May	26,787,000	490,000	4,468,000	26,579,000	48,609,000

*All 1926 figures except imports revised.

Kerosene, Lubes, Wax, Fuel and Gas Oils

KEROSENE (Bbls.)	Production	Imports	Exports	Domestic Shipments	Stocks End of Month
January, 1926	5,122,000	.....	1,871,000	3,521,000	6,851,000
February	4,746,000	1,000	1,577,000	3,166,000	6,855,000
March	5,516,000	1,000	1,876,000	3,492,000	7,004,000
April	5,037,000	1,000	1,760,000	3,268,000	7,014,000
May	5,210,000	4,000	1,623,000	3,227,000	7,378,000
June	5,009,000	3,000	1,601,000	2,908,000	7,881,000
July	4,877,000	21,000	1,612,000	2,733,000	8,434,000
August	5,162,000	20,000	2,689,000	2,731,000	8,196,000
September	5,207,000	21,000	1,843,000	3,419,000	8,162,000
October	5,126,000	3,000	1,818,000	3,235,000	8,238,000
November	5,357,000	.....	1,943,000	3,592,000	8,060,000
December	5,399,000	.....	1,847,000	3,037,000	8,575,000
1926 Total	61,768,000	75,000	22,060,000	38,329,000	
January, 1927	5,113,000	.....	1,616,000	3,882,000	8,190,000
February	4,453,000	1,000	1,399,000	2,590,000	8,655,000
March	4,802,000	3,000	1,351,000	3,356,000	8,753,000
April	4,608,000	1,000	1,861,000	2,776,000	8,725,000
May	4,663,000	1,000	1,633,000	3,188,000	8,568,000
LUBRICANTS (Bbls.)					
January, 1926	2,648,000	2,000	727,000	1,632,000	7,544,000
February	2,448,000	1,000	789,000	1,294,000	7,910,000
March	2,646,000	4,000	740,000	2,180,000	7,640,000
April	2,692,000	3,000	928,000	2,039,000	7,368,000
May	2,863,000	11,000	717,000	1,869,000	7,656,000
June	2,681,000	3,000	984,000	2,042,000	7,314,000
July	2,831,000	1,000	747,000	2,071,000	7,328,000
August	2,648,000	2,000	660,000	2,092,000	7,226,000
September	2,645,000	2,000	705,000	2,019,000	7,149,000
October	2,768,000	2,000	704,000	1,778,000	7,437,000
November	2,724,000	1,000	820,000	1,722,000	7,620,000
December	2,699,000	1,000	917,000	1,827,000	7,576,000
1926 Total	32,293,000	33,000	9,438,000	22,565,000	
January, 1927	2,570,000	81,000	864,000	1,496,000	7,867,000
February	2,345,000	.....	620,000	1,231,000	8,361,000
March	2,754,000	149,000	895,000	2,334,000	8,035,000
April	2,615,000	1,000	763,000	1,712,000	8,176,000
May	2,625,000	1,000	863,000	1,928,000	8,011,000
WAX (Pounds)					
January, 1926	53,015,000	632,000	29,061,000	18,204,000	122,773,000
February	50,307,000	668,000	28,709,000	21,075,000	123,964,000
March	55,714,000	456,000	25,005,000	24,788,000	130,341,000
April	55,371,000	647,000	31,560,000	18,715,000	136,084,000
May	56,135,000	213,000	23,968,000	19,068,000	149,396,000
June	50,673,000	833,000	27,300,000	18,348,000	155,254,000
July	54,267,000	2,089,000	30,768,000	24,138,000	156,704,000
August	54,441,000	968,000	26,906,000	20,142,000	165,065,000
September	49,228,000	252,000	29,303,000	25,463,000	159,779,000
October	56,011,000	1,384,000	28,365,000	20,884,000	167,925,000
November	54,678,000	674,000	25,164,000	21,059,000	177,054,000
December	55,950,000	1,189,000	28,410,000	20,452,000	185,331,000
1926, Total	645,790,000	10,005,000	334,519,000	252,336,000	
January, 1927	54,114,000	460,000	29,228,000	17,842,000	192,835,000
February	47,363,000	2,048,000	23,623,000	20,171,000	198,452,000
March	53,644,000	910,000	28,205,000	23,461,000	201,340,000
April	48,917,000	1,505,000	25,421,000	15,322,000	211,019,000
May	46,267,000	729,000	25,228,000	25,458,000	207,329,000
GAS and FUEL OILS (Bbls.)					
January, 1926	28,981,000	863,000	3,612,000	.....	*23,266,000
February	27,094,000	1,585,000	3,190,000	.....	*21,445,000
March	29,824,000	947,000	2,345,000	.....	*20,037,000
April	29,029,000	1,148,000	3,475,000	.....	*19,788,000
May	30,380,000	1,368,000	2,735,000	.....	*20,858,000
June	29,130,000	1,856,000	3,370,000	.....	*22,554,000
July	31,461,000	1,485,000	2,427,000	.....	*25,696,000
August	31,154,000	1,629,000	3,582,000	.....	*26,500,000
September	30,698,000	817,000	2,750,000	.....	*27,151,000
October	32,444,000	857,000	2,015,000	.....	*26,376,000
November	31,624,000	1,111,000	5,020,000	.....	*26,859,000
December	33,376,000	764,000	3,830,000	.....	*24,898,000
1926 Total	365,195,000	14,430,000	38,351,000	.....	
January, 1927	32,936,000	660,000	3,732,000	.....	*23,195,000
February	30,185,000	1,053,000	3,812,000	.....	*22,099,000
March	32,377,000	525,000	3,657,000	.....	*22,561,000
April	31,856,000	805,000	3,325,000	.....	*23,732,000
May	33,499,000	826,000	4,544,000	.....	*26,059,000

*These stocks for east of California only.

Crude Oil Stocks - By Months

(Thousands of Barrels)

1926	East of Calif.	†In Calif.	Total U. S.
January	291,400	130,841	422,241
February	287,975	131,638	419,613
March	287,710	131,678	419,388
April	286,208	124,290	410,498
May	284,009	125,359	409,368
June	281,432	122,794	404,533
July	278,184	121,344	399,528
August	277,486	119,893	397,379
September	277,771	117,964	395,735
October	277,014	117,928	394,942
November	277,099	117,497	394,596
December	278,077	118,131	396,208
1927			
January	278,972	118,988	397,673
February	285,458	117,410	402,868
March	290,110	117,454	407,564
*April	297,895	117,843	415,738
May	307,016	117,432	424,448

†Includes heavy fuels. *Revised.

output was decreased 2.86 per cent due to reductions in the East Coast, Texas and Louisiana-Arkansas districts. May shipments were larger than April shipments from all but the Appalachian, Louisiana-Arkansas and Rocky Mountain districts. The largest gain in shipments was in the Gulf Coastal region. Stocks were lowered in the Indiana-Illinois, Texas, Louisiana-Arkansas, and California districts.

Gas and fuel oil production was 1.77 per cent larger than April's production. Shipments were 1.69 per cent less and stocks east of California rose. Production and shipments were larger in May than in April in the Appalachian, Louisiana-Arkansas and Rocky Mountain districts, but larger elsewhere east of California. No district east of California drew on stocks to meet demand.

The gain in crude oil production was due entirely to Seminole and the west Texas fields. Average production in Oklahoma rose to 756,800 barrels a day, compared with 707,900 in April and 483,253 in May, 1926. Texas production rose from 578,600 barrels daily average in April to 592,700 barrels daily average in May. Texas production in May, 1926, averaged 365,774 barrels daily. California's production fell from 649,800 barrels average in April to 629,200 barrels average in May although average production in the Seal Beach field rose from 37,000 to 50,000 barrels.

The bureau gives the Seminole average in May as 339,000 barrels, a figure based on the volume of oil transported from the field. It states, however, that only about 200,000 barrels of crude was added to stocks in the Seminole district. The increase in Panhandle production figures from 122,000 barrels daily average in April to 135,000 barrels average in May is attributed to improved transportation facilities.

Stocks at Seminole at the end of the last two months compare:

	May	April
Producers' stocks	335,000	306,000
Tank farm stocks	5,386,000	5,207,000
Total	5,721,000	5,513,000

Imports of crude in May and April

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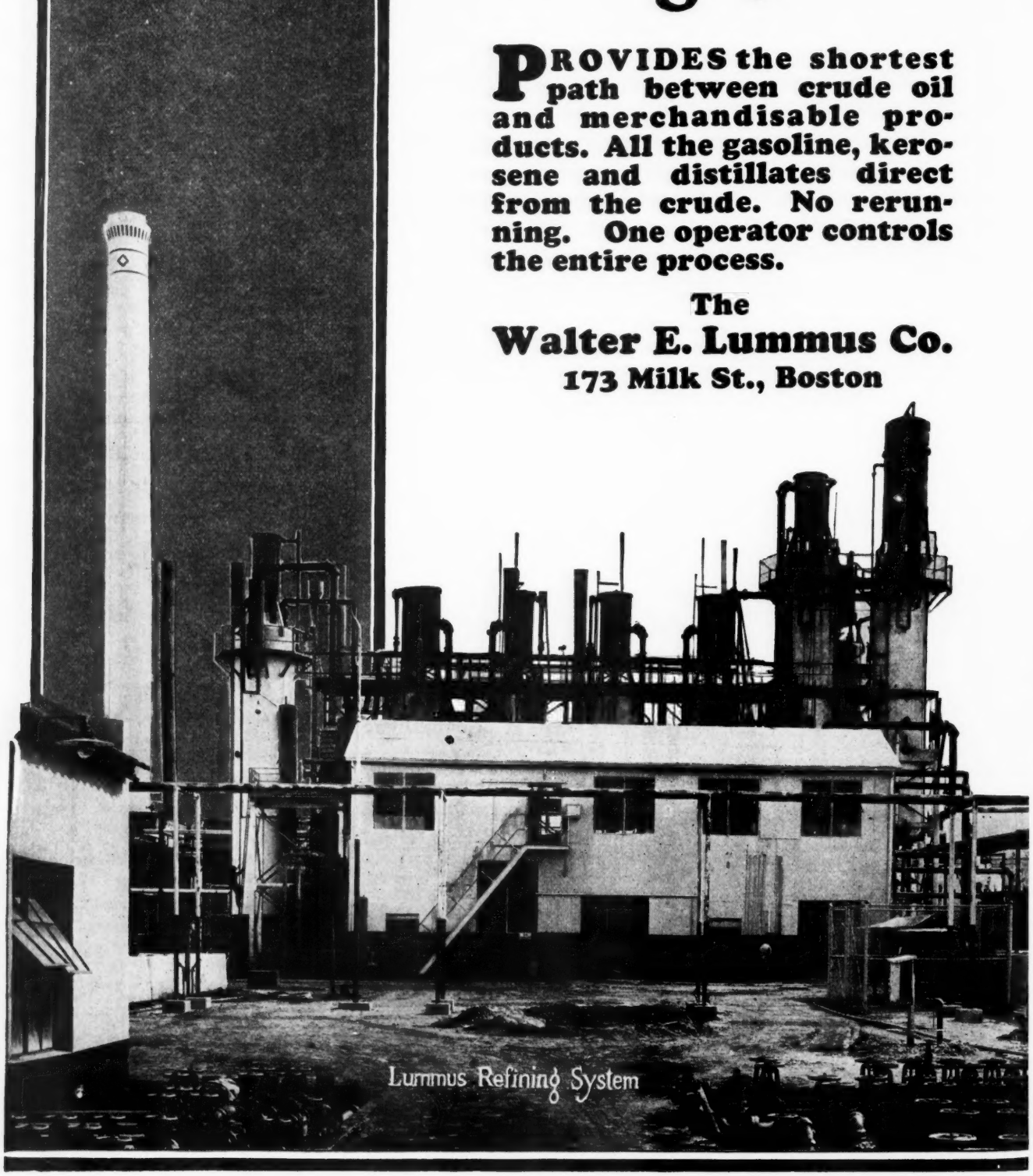

Lummus Refining System

Grade Production - - - Barrels

(Daily Averages)

States	May 1927	*April 1927	May 1926
Arkansas	113,900	110,000	175,645
California	629,200	649,800	602,166
Colorado	7,800	10,000	6,968
Illinois	19,400	17,800	21,000
Indiana	2,300	2,200	2,193
Kansas	114,900	115,900	113,710
Kentucky	17,900	18,900	16,845
Louisiana	53,300	56,300	67,226
Michigan	1,300	1,300	129
Montana	14,700	13,700	24,967
New Mexico	3,200	4,900	3,903
New York	6,200	6,100	4,968
Ohio	21,600	21,400	19,548
Oklahoma	756,800	707,900	483,253
Pennsylvania	26,200	26,800	24,097
Tennessee	200	100	123
Texas	592,700	578,600	365,774
West Virginia	16,500	16,800	15,871
Wyoming	62,000	62,100	69,549
Total U. S.	2,460,100	2,419,700	2,017,935
CLASSIFICATION BY GRAVITY			
24° A. P. I. and lighter	2,157,700	2,107,600	1,658,774
Heavier than 24°	302,400	312,100	359,161

compare, amounts are daily average barrels:

	May	April
Mexico	88,700	64,900
Venezuela	33,200	35,100
Colombia	20,200	19,700
Other countries	4,900	15,700
Total	147,000	135,400

Changes in other fields varied not more than 3,000 barrels in the daily averages.

Production in this country in the first five months of 1927 totaled 363,507,000 barrels, a gain of 66,050,000 barrels over the first five months of 1926. Imports were 4,306,000 barrels less, leaving a net gain of 61,744,000 barrels in the new crude supply this year over the new supply in the corresponding five months of 1926.

Crude oil stocks rose to 424,448,000 barrels, the highest level in the history of the industry. There was a small reduction of stocks in California when a draft of more than 2,000,000 barrels was made on light, refinable crudes, more than offsetting an accumulation of heavy crudes there. East of California refiners reduced their crude oil stocks 987,000 barrels and foreign crude stocks fell 162,000 barrels but stocks in pipe lines and at tank farms rose 10,270,000 barrels, making a net increase of 9,121,000 barrels east of California and an increase of 8,710,000 barrels in the whole country.

Injured in Auto Accident

CHICAGO, July 8.—Harry P. Dunn, head of the oil company that bears his name, at 624 South Michigan Ave., Chicago, was released this week from his second visit to the hospital. He had to have the first job of collar bone setting revised. He is expected back at his desk by the last of next week. In the meantime he is directing his business from his bed at home. Mr. Dunn's injury was a result of an automobile accident on June 14, between Chicago and Crystal Lake.

Louisville, Ky.—Stoll Oil Refining Co. has completed a bulk plant at Horse Cane, Ky.

Do you know that *real* Tank Protection costs little if any more than haphazard protection?

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It is spark-proof, self-closing, gas-tight, contains no liquid seals or gaskets and is made of the right materials and best workmanship throughout.

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Visiting Around the Refineries

By Paul Truesdell

National Petroleum News

Keeping The Feet From Slipping

I SAW what struck me as a clever idea in the building of a short walkway at the plant of the Lincoln Oil Refining Co. at Robinson, Ill. The walkway was built of light steel plates that evidently had been salvaged from some of the old equipment that had been torn out. But smooth steel plates are pretty slippery, especially when they get smears of oil or grease on them.

The danger of slipping had been reduced on this walkway by cutting staggered slits through the plate in a regular pattern with an acetylene or an electric torch.

This kind of construction of course is not used on any of the big work of the plant. Around the Holmes-Manley stills and the Kellogg pipe still, the walkways and stairways are of openwork "subway" flooring. But on a small job where an elevated walkway is more convenient than walking on the ground, when the plates and the welders are available, the slitted plates seem to serve very well.

Finding Out How Others Are Doing It

H. R. STOLTZ, pressure still superintendent at the refinery of the Indian Refining Co., Lawrenceville, Ill., has been making a trip of inspection through the refining centers of the Mid-Continent, visiting the refineries, talking with the operating executives and no doubt picking up ideas that he can use in his work and at the same time giving out hints and suggestions from his own experience that will equally benefit the men he visits.

It would seem that any company that is willing to spare its operating men for a trip to other refineries will cash in handsomely on the trip and the men whose plants are visited by the pilgrims will benefit equally so that everybody will be better off. Mr. Stoltz was in Wichita, Kan., on July 1.

Refinery In Panhandle Going Full Blast

O. W. CRICK, assistant secretary of the Alamo Refining Co., Amarillo, Tex., states that that company's refinery at Borger is operating at full capacity. The fuel oil is being sold to the Santa Fe railroad and the U. S. Motor gasoline produced is being sold locally and shipped to jobbers in Standard of Indiana territory, Mr. Crick says.

Refinery Workers Help Flood Sufferers

WORKERS at the Beaumont, Tex., refinery of the Magnolia Petroleum Co., within 10 hours after the start of a campaign to raise money for the Mississippi flood victims, raised $11,500 which was turned over to the Red Cross, according to the *Magnolia Oil News*, July issue. Ninety five per cent of the employes were reached in the 10 hours with cards which were distributed through foremen, sub-foremen and timekeepers. They were signed up on the spot, 100 per cent contributing.

J. F. Hensley, chairman of the relief fund committee at the refinery was authorized by the employes' committee to draw a check for $11,500 on the funds of the Employes' Mutual Benefit Association so that the money would be available immediately.

Rittman and Crandall Visiting Mid-Continent

REFINING experts seem to be traveling around in the refining centers this summer. News from Tulsa is that Dr. Walter F. Rittman, noted petroleum technologist, now professor of mechanical engineering at the Carnegie Institute of Technology, Pittsburgh, is spending a few weeks in Oklahoma and Kansas, principally Tulsa and Eldorado.

Roderic Crandall, of Crandall & Osmond, refinery consulting engineers of 17 Battery place, New York, is another expert spending the summer in Oklahoma. The presence of the two men in Oklahoma at the same time has no connection as far as we know.

Shell Company Building New Acid Plant

SHELL Co. of California has let a contract to the George E. Hurt Engineering Co., New York City, for a geyser-action sludge acid recovery plant to be constructed at the company's new refinery which is building at Dominguez, Cal., according to Mr. Hurt, president of the company.

Work has been started on the acid recovery plant and it is expected to be in operation this fall. Continuous operation, absence of clogging, absence of fumes and high yield of acid are features claimed for the geyser action process.

Magnolia Man To Run Refinery In Russia

CAMPBELL Allen, a shift foreman with long training in the laboratories of the Magnolia Petroleum Co.'s refinery at Beaumont, has been selected to go to Russia to operate a refinery being built there by the Standard Oil Co., of New York, according to the July issue of *Magnolia Oil News*.

Mr. Allen has already gone to New York where he will spend several months in the Standard of New York laboratories studying methods of treating Russian kerosene. The refinery is at Batum, on the shore of the Black Sea.

California Plant Puts In Jenkins Still

WESTERN Oil & Refining Co., with a refinery near Los Angeles, is putting in a Jenkins cracking unit with a cracking capacity of about 800 barrels a day, according to A. A. G. Scherbel. It is expected the new cracking plant will be in operation some time in October. The refinery is located between Los Angeles and San Pedro harbor and has a berth on the water front.

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Our Industry — A Page of Facts and Personalities

National Petroleum News

By Paul Wagner

FRED H. WICKETT, chairman of the board of the Pan American Petroleum & Transport Co., now stock-controlled by Standard of Indiana, is taking a vacation in Europe. He is expected to return to Chicago headquarters some time in August. Mr. Wickett, a lawyer by training, built up the Dixie Oil Co., Inc., to importance in the Caddo, La., field, before selling it out to Standard of Indiana about 10 years ago. Since that time the Dixie has been the Standard's direct-controlled producing subsidiary in the southwest.

* * *

CHARLES JOHNSON of the land department of Mid-Kansas Oil & Gas Co., has been transferred to Shreveport in charge of a new division comprising 42 counties in east Texas. Previously all Texas operations were handled through Tulsa. Division offices for Louisiana and Arkansas have been maintained at Shreveport by Ohio Oil Co., the parent organization, since it bought the Smitherman, Palmer & Lane properties in the Haynesville, La., field, several years ago. L. L. Brock will scout east Texas territory for Mid-Kansas, from Tyler headquarters; Stewart Mosson and R. E. Copeland will be attached to the geological staff at Shreveport.

* * *

FRIENDS in Mexico especially will learn with pleasure of the appointment of Roy Donaldson as superintendent of the Delaware river terminal of The Texas Co. Mr. Donaldson was, for years, in charge of the Agua Dulce works of The Texas Co. of Mexico, S. A., at Port Lobos, and afterwards the Tampico works. He was born in Iowa and educated in schools of Arizona and Texas. He first entered service of The Texas Co., in 1905, resigning in 1907 to become mechanical engineer for the Dolores Mines Co. of Mexico. Later he worked for El Tigre Mines of Mexico, reentering service of The Texas Co., at Port Lobos in 1919 as assistant superintendent. He was made superintendent in 1920 and transferred to Tampico as superintendent, July 1, 1924.

* * *

FEDERAL ROYALTIES CO., INC., which was recently formed by Cresap P. Watson and associates of New York, is maintaining offices at 111 Broadway, in charge of James B. Greene, secretary-treasurer. Mr. Watson, who was formerly assistant to the president of the Amerada Corp., has on the board of directors of the Federal with him Messrs. Mason B. Starring Jr., James A. Campbell, Jr., James B. Greene and George B. Brooks, all of New York City. Mr. Watson is president and Mr. Campbell is vice president. Mr. Watson has been spending considerable time lately in the southwest, engaging personally in looking after property acquisitions.

* * *

RESIGNATION of Paul Steed as president of the Reiter-Foster Oil Corp., Dallas and Tulsa, has been followed by the election of Paul S. Asche of Denver to succeed him. Asche's individual properties in the Amarillo district are being taken over by Reiter-Foster, which has been previously active in development of Shackleford county, Texas, leaseholds.

* * *

CHRISTY PAYNE, president of Hope Natural Gas Co., and director of the Parent Standard Oil Co. of New Jersey, was accompanied on a trip to the Texas Panhandle late in June by Ralph B. Gallegher, Cleveland, president of the East Ohio Gas Co. They were guests, while in the Mid-Continent, of Nelson K. Moody, president of Prairie Oil & Gas Co.

* * *

LESLIE McKAY, formerly Laredo district deputy supervisor of the oil and gas division, Railroad Commission of Texas, has been appointed assistant chief supervisor. He succeeds B. C. Clarity, who recently resigned with his chief, Judge H. E. Bell, who is now head of the land and legal departments of the Moutray Oil Co., at Abilene. Mr. McKay assists R. B. Parker, formerly head of the gas utilities division, whose recent appointment to succeed Mr. Bell was previously reported.

* * *

FRANK FRANTZ, a captain in Roosevelt's Rough Riders and afterwards territorial governor of Oklahoma, has been attracted to San Angelo by west Texas oil. He is widely known in the industry, having served Cosden & Co., at Tulsa, as head of the land department for years before heading his own company in Rocky Mountain territory. Operating as the Frantz Oil Corp., the captain found the Cat Creek field of Montana. He plans to open an office at San Angelo.

* * *

F. J. OMO, formerly an executive assistant in the Fort Worth offices of Texas Pacific Coal & Oil Co., has been placed in charge of all credits affecting tank car and bulk station sales at Fort Worth. At Thurber, which is legal headquarters of the Texas Pacific, similar duties will be performed by W. J. Ochiltree, assistant secretary.

* * *

EDWARD T. MOORE of Dallas, president of the Simms Oil Co., recently finished an inspection trip of west Texas fields. Accompanying him were J. W. Streeter of New York, vice president of the parent Simms Petroleum Co., and W. L. Todd of Dallas, vice president and production manager of Simms Oil Co.

* * *

THE Thigpen & Herold gas producing properties in the Shreveport district have been consolidated with interests of the Moody-Seagraves group in northwestern Louisiana and northeastern Texas. As a result a new corporation to be known as the Greenwood Production Co., with capital stock of $100,000, has been formed. J. A. Thigpen is president; B. A. Hardy, vice president; Eugene Harding, secretary; and S. L. Herold, treasurer. All live at Shreveport. O. R. Seagraves and W. L. Moody, III, of Galveston and Houston, fill out the directorate.

* * *

W. A. MONCRIEF, vice president of Marland Oil Co. of Texas, has returned to Fort Worth headquarters after a trip to Rocky Mountain territory.

* * *

PORT FLEEGER, discoverer of the Kingman, Kansas, pool, has taken out permit to operate in Texas after forming the Fleeger-Houston Oil & Gas Co. Norwood Lykes of Fort Worth was named as Texas agent.

* * *

TEXAS offices have been opened at San Angelo by Union Oil Co. of California, with J. P. Bynum in charge of the land department and C. R. Smith heading geological work. Field studies are to be made and acreage acquired in line with findings.

* * *

DR. DONALD C. BARTON, formerly chief geologist of the Rycade Oil Corp., and later in charge at Houston of the affiliated Geophysical Research Corp., has opened offices in the Petroleum building for consulting practice.

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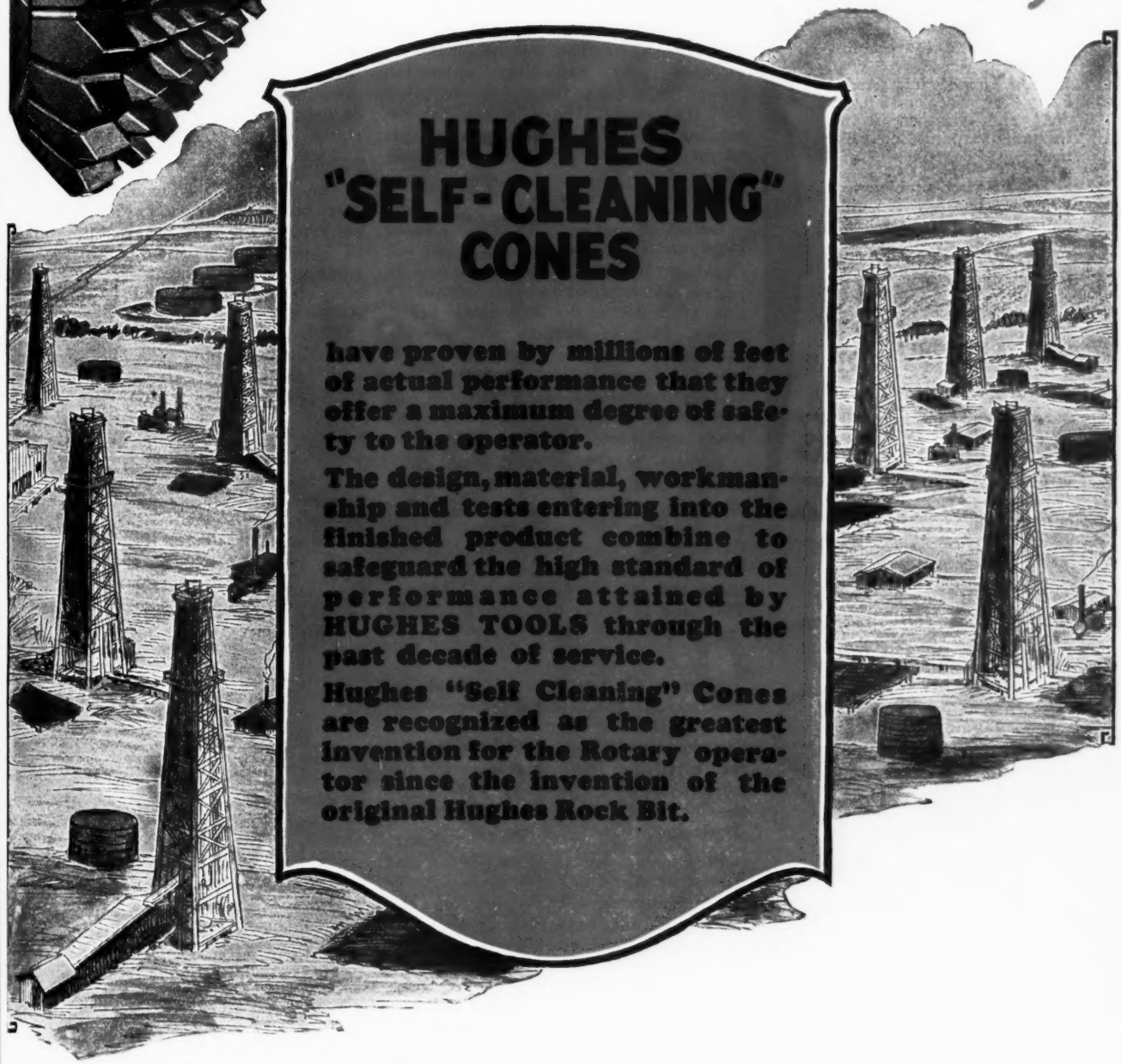

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No. 6.

New Equipment to Improve Plants

Personal Notes of the Manufacturers

National Petroleum News

Tagliabue Manufacturing Co., Brooklyn, N. Y., has just put out Tag Mono catalog, No. 942. This describes the Tag Mono flue gas analysis indicator-recorder for checking the efficiency of combustion in still and boiler furnaces and the Tag line of flue gas thermometers. The gas analysis indicating and recording apparatus comes in duplex form for recording both CO_2 and CO and single for recording CO_2 only. The apparatus is of the absorption type and electrically operated.

* * *

Butler Manufacturing Co., Kansas City and Minneapolis, has just put out Catalog 104. The catalog contains 96 pages which describe the company's line of truck tanks and their accessories, funnels, buckets and barrels, domestic fuel, service station and bulk station storage tanks, complete bulk station equipment, tank fittings, oil and grease pumps, visible pumps and other equipment.

Besides this the catalog contains considerable information valuable to oil men, including a picture showing how to erect horizontal storage tanks. Capacity of cylindrical tanks, explanation and description of U. S. standard gages and other information are given. The book is being distributed free by the company on request.

* * *

Lincoln Electric Co., Cleveland, O., has put out the following suggestions as a guide for entrants in the contest for the $17,500 Lincoln arc welding prize for 1927, donated by the Lincoln company and administered by the American Society of Mechanical Engineers.

Practicable, workable ideas will get more consideration than ideas whose practicability is open to question. Development and extension of the field of usefulness of electric welding and material and labor savings by its use are aimed at. The object of each entrant should be to make concrete and practical application of known facts and principles. Application should be made in the field in which the entrant is engaged.

It is probable that the entrant will find the best way to tackle the job is to study all the technical literature available on the subject of electric welding. Examples of some of the applications of electric welding are given as follows: steam boilers; pressure tanks; oil stills; air receivers; tank cars; steel smoke stacks; steel pipe; steel building; gear cases, covers and containers used in machinery; chemical apparatus.

The winners of the prize will be largely selected on amount of saving the suggestion submitted shows, either directly on the design submitted or in its possible wider application, it is announced. Lincoln Electric Co. stands ready to assist anyone by suggestions and further information can be obtained from the company or from the A. S. M. E.

* * *

The Thermo Engineering Corp. has just been organized in Tulsa to act as representatives for manufacturers of heat transmission and refinery equipment. Offices of the new company have been opened at 317 New Alexander building.

S. E. Savage, formerly with the International Supply Co. is president and treasurer of the new company. C. K. Bennett, formerly with Schutte and Koerting, is secretary and consulting engineer. J. D. McLin is vice president. The new company now represents the O. E. Frank Heater & Engineering Co. of Buffalo, which manufactures condensers, heat exchangers and coolers and heaters for both low and high pressure work. Other lines will be added later.

* * *

Waukesha Motor Co., Waukesha, Wis., reports earnings of $796,856 for 10 months of current fiscal year before adjustment for income tax. H. L. Horning, president, reported June and July orders were largest in history of the company. The company manufactures heavy duty gasoline engines many of which are used in the oil industry. The regular quarterly dividend of 62½ cents a share was to be paid July 1.

* * *

Novo Engine Co., Lansing, Mich., is sending out advance notice of a new Novo engine handbook soon to be off the press. The book is for distribution on request. Together with the notice comes a folder in colors describing and illustrating the new Novo "Flud Oild" series of engines.

* * *

Bessemer Gas Engine Co., Grove City, Pa., has just published a new catalog featuring the Bessemer four-cycle compressor known as Type FC which has been in service for several years in natural gasoline plants, booster stations and for flowing wells at high pressure. Oil men may obtain copies of the booklet by addressing the company.

Transmigration
OF TRANSPORTATION

CHESTNUT & SMITH
CORPORATION

POST haste

From pony express to transcontinental air mail in one generation portrays an almost magic advance in transportation.

The air mail of to-day depends for its success on the highest quality motor fuel—a fuel that requires its proper percentage of NATURAL GASOLINE to give it the necessary high volatility thus producing perfect motor performance.

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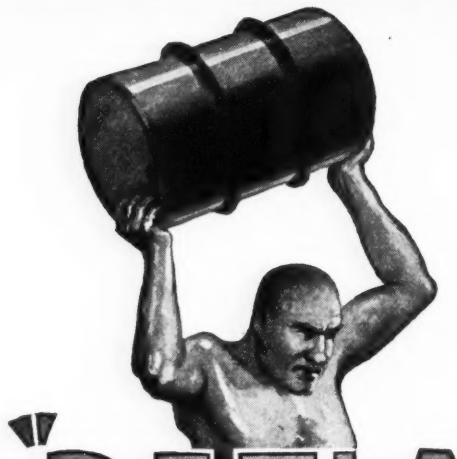

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STANDARD

There is but one grade of Defiance Steel Barrels. The difference in price is governed only by the size, style or external design.

There is a uniformity of manufacture that is standard, too. Defiance Barrels are *all* good barrels. Every barrel in a shipment can be depended on.

A Defiance Steel Barrel is an accepted standard in barrel buying.

THE AMERICAN STEEL PACKAGE CO.

Defiance, Ohio

Oil Price Handbook

RECENT crude and tankwagon price changes have caused many an oil man to study prices prevailing a year ago at this time.

What was Mid-Continent crude a year ago today? Or, what was 58-60 U.S. Motor gasoline in Oklahoma? Or, the tankwagon price of gasoline a year ago? These are some of the questions you are asking yourself right now.

You can get the answers most conveniently, rapidly and accurately in the OIL PRICE HANDBOOK for 1926. It contains the refinery, tankwagon, crude prices and export markets for the entire year 1926 as published in the weekly issues of National Petroleum News. 146 pages, cloth bound, marginal index—price $5. Send for your copy *today*.

NATIONAL PETROLEUM NEWS 1213 W. 3rd St. Cleveland, Ohio

New Publications

New Griffiths Book Out

A new revised edition of "Methods of Measuring Temperature," by Dr. Ezer Griffiths is off the press. The information in the book is applicable not only to strictly scientific work but also in actual process control in refineries.

Particular emphasis is laid on the experimental basis of the methods in general use, the calibration of the instruments and the precautions which must be observed in practice. The author takes up individually the various types of pyrometers and explains the theory underlying the calibration of the instruments.

The book also sets forth clearly the errors to which pyrometric observations are liable when the conditions of use do not comply with those postulated by the theory upon which the design is based, particularly in the case of instruments of the radiation type.

New Oil Reference Book

CHICAGO, June 29.—James A. Gilmore, secretary of the American Oil Men's Association, announces that the Petroleum Reference Book which the organization has spent months compiling is ready to go to press. It will be out about the middle of July and will sell for $2.

It was started by the late Horace G. James, who was secretary of the A. O. M. A. just before Mr. Gilmore. The figures are brought up to date and all the available work of the original author preserved in the book. Publication was financed by advertising of oil companies and oil equipment manufacturers.

Puts Out Motor Trails Guide

CLEVELAND, July 2.—A 39-page motor trails guide for Michigan, pointing out towns along state highway routes where Dixie gasoline and service are dispensed, has been published by Dixie Distributors, Inc., as part of its advertising campaign to acquaint motorists with the towns of the state.

Towns where Dixie service can be had are marked in red, and in some instances, the name of the oil company handling Dixie products, is given. Routes are given numerically and towns are in geographical order. Mileages and camp grounds are also listed. Population, industrial development and other pertinent facts about each town are included.

A map of Michigan indicates towns where Dixie products are available by red dots.

Seneca Spring Legend Forecasts Modern Use of Petroleum

CLEVELAND, July 8

HOW a Seneca Indian youth discovered the famous oil spring near Cuba, N. Y., and learned that malaria could be effectively combated with the oil, is told in a leaflet issued in connection with the celebration July 23 of the three hundredth anniversary of the first written mention of the spring by the Franciscan monk and explorer, Joseph de la Roche d'Allion.

The leaflet was prepared by Arthur C. Parker, director, Rochester Municipal Museum, nephew of Gen. Ely Parker, Seneca aide to General U. S. Grant. The legend of the discovery which will be used by Mr. Parker as the first chapter of a book on Iroquois lore to be published next year, not only discounts modern medical methods of fighting malaria and yellow fever but it also contains a prophecy that the oil "will make the whole world run faster", a forecast which has come true through the agency of the automobile.

The tercentenary celebration at Seneca Oil spring July 23 will be under the auspices of the New York State Oil Producers' Association and will be joined in by representatives of the whole industry. Robert H. Bartlett, Tulsa, is chairman of the general committee in charge of the celebration, and Harry E. Keller, Cuba, N. Y., is vice-chairman.

Other members of the general committee are: Lewis H. Thornton, Wellsville, N. Y.; John P. Herrick, Olean; N. V. V. Franchot, Olean; A. L. Shaner, Bolivar; C. G. Dorn, Bradford; Harry Bradley, Wellsville; William Dusenbury, Portville, N. Y.; Frank E. Richart, Wellsville; C. A. Ackerly, Cuba; Cassius Congdon, Clarksville; H. E. Goodrich, Richville, N. Y.; Frank A. Herrick, Bolivar; Herbert J. Demcey, Cuba; Arthur C. Parker, Rochester; C. A. Hartnagle, state geologist, Albany; Dr. A. C. Flick, New York state historian, Albany; A. T. Fancher, Salamanca, and Edward R. Foreman, president, Rochester Historical Society.

A committee to represent the American Petroleum Institute at the celebration consists of: E. W. Clark, Union Oil Co., Los Angeles, president of the A. P. I.; R. C. Holmes, The Texas Corp., New York; W. M. Irish, Atlantic Refining Co., Philadelphia; E. R. Brown, Magnolia Petroleum Co., Dallas; Guy Wellman, Standard Oil Co. of New Jersey, New York; R. D. Benson, Tide Water Oil Co., New York; Samuel Messer, Jas. B. Berry's Sons Co., Oil City, Pa.; J. Howard Pew, Sun Oil Co., Philadelphia; O. D. Donnell, Ohio Oil Co., Findlay, O.; George H. Taber, Jr., Sinclair Refining Co., New York; George S. Davison, Gulf Refining Co., Pittsburgh, and Frank B. Fretter, National Refining Co., Cleveland.

The institute has prepared an article with illustrations concerning the Seneca spring for distribution to newspapers. Design for a tablet to be unveiled at the spring July 23 has been approved by Messrs. Hartnagle and Thornton. Details of the program are nearing completion.

Dr. Parker's transcription of the Seneca legend is:

"The tale relates that a village was stricken by strange fevers and that many of the people died, slow, lingering deaths, in which they were convulsed by chills and then burned by fever. Gone Goose, the medicine man, could effect no cure, nor could he determine what caused the disease.

"It was then that Skunny Wundy, a youth, unable to sleep, crept out upon the roof of the bark house and watched the near-by pond. To his amazement he saws the hummocks of grass rise up, pushed by long wisps of vapor. Like gray ghosts, these queer beings danced upon the surface of the pond and as they opened their mouths a shrill singing sound was heard. Skunny Wundy looked and saw swarms of mosquitos coming from the foggy throats of the ghosts. These attacked him, driving him back to his bed and under the protection of a buffalo skin. Then he fell to dreaming. He saw in a vision a strange spring whose guardian spirit was a hunch-backed dwarf with a peaked red cap. Near-by he saw an enormously fat she-bear sporting about. A dream guide told Skunny Wundy to find the spring and talk to the dwarf, for in that manner his tribe would be freed from sickness and given a great treasure.

"THE next day the boy sought out the spring. At first he was afraid of the fat bear, but when she talked to him he lost fear and asked her about the dwarf. She laughed and told him to watch her.

"Poising upon a fallen tree she dove into the pool and splashed about, becoming very thin. Her fat dissolved and floated upon the water. When she came out the dwarf popped up and sprang to the bank. He greeted Skunny Wundy and asked him what he wanted.

"'I want to master the gray witches that dance in the haze of the ooze,' came the answer. 'I dreamed that you would tell me how.'

"'Then take the oil and pour it upon your pond,' said the dwarf. 'Run with it as fast as you can; when you get tired rub it on your joints and it will make you run faster. It is good medicine and you must give it to the world.'

"Skunny Wundy took a pot of the oil back to his village and poured some on the waters of the pond, at which the gray witches shrieked and sank into the ooze, becoming 'hummocks of sedge.' Then he rubbed it upon the bodies of the sick people and made them well.

"To his uncle, Rumbling Wings, Skunny Wundy told the story of his discovery. 'The dwarf says it will make people run faster,' concluded the boy.

"'Aye', answered Rumbling Wings. 'Verily I do believe that you have found the great medicine that will make the whole world run faster.'"

Santa Fe to Build Branch Line to Texas Fields

WASHINGTON, July 8.—The Interstate Commerce Commission has authorized the Panhandle & Santa Fe, a subsidiary of the Santa Fe system, to construct a branch line in Carson and Hutchison counties, Texas, to serve the Roxana and Skelly oil fields. The extension is to be built in two segments, the whole at a cost of about $2,000,000 for a 21-mile extension from White Deer north and northwest to Hutchison county.

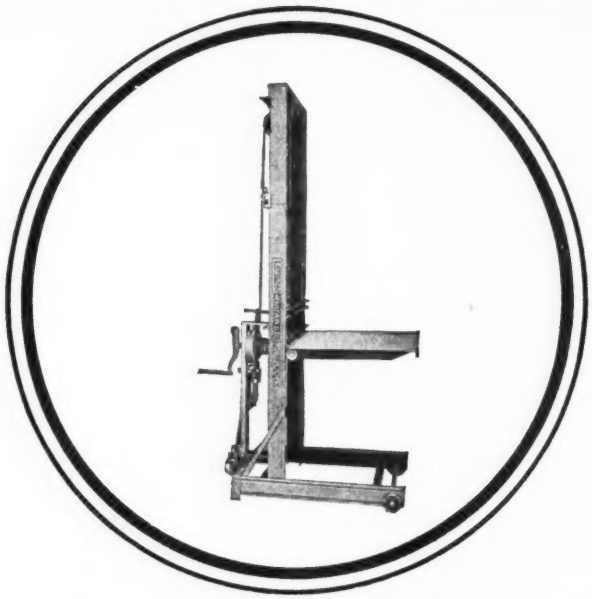
Construction on the first segment, 11 miles long, is to be begun immediately and completed by the end of the year at a cost of $921,900. The Santa Fe wants a year longer to think about and build the other segment, which is estimated to cost $1,032,000. The first part is to have 15 miles of sidetracks and the second 12 miles of such tracks. The Santa Fe estimates that at the end of the first year the two parts are operated it will produce $5,200,000 and at the end of five years $11,300,000.

These figures were based on a production, on May 1, 1927 of 10,000 barrels a day from 59 wells, with 53 other wells drilling. The Santa Fe said that by May 1, 1928, it was estimated there would be 260 producing wells with a daily average of 44,000 barrels. It estimated the field would last 10 years.

The Santa Fe said it desired to serve the transportation needs of the Texas and Badger oil companies now operating in the fields, that other companies were coming and that natural gasoline and carbon black plants would be established.

It said that on account of the heavy paraffin base of the oil in those fields pipe line transportation was difficult for any except short distances. All those production estimates pertain to the operations around mile post 11, on the part of the line first to be built. In the field at the northern terminus of the two-part line, production was estimated at 18,000 barrels from 60 wells by next May.

A Master Portable Elevator



Illustrated above is the Lewis-Shepard 500 lb. portable elevator, a tough machine built for rough use and long life. Ask us how it can help YOUR business.

THERE is no need to pay more if your loads are 500 lbs. or less. No portable elevator is more efficient on loads of this capacity. The 500 lb. Stacker embodies the essential and superior features of our Worm Drive Stackers.

Write, now, for our latest catalog and the new "Jacklift and Stacker practice," just off the press.

LEWIS-SHEPARD COMPANY

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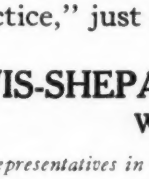
Representatives in Over 30 Principal Cities



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WHEN YOU WANT QUALITY AND REASONABLE PRICES

Mixed Carload in Drums—or Tank Cars

"INVINCIBLE" MOTOR OILS

100% Pennsylvania or Western Blends

To Match Any Oil Made

WRITE

A. D. MILLER SONS' CO.

Millers Oil Refining Works

PITTSBURGH, PENNA.

Oldest Pennsylvania Refiners

W. Jacobi Promoted On Wadham's Staff

WALTER P. JACOBI

TULSA, July 8.—Walter P. Jacobi, for the past five and a half years buyer for Wadhams Oil Co. of Milwaukee, with office in Tulsa, left today for Milwaukee where he will become head of the light oils purchasing department, succeeding the late L. E. Yundt, whose death occurred June 20.

Having established many personal and business friendships throughout the Mid-Continent during his stay in Tulsa, there were numerous expressions of regret among the trade at the announcement that he was leaving the city, although those who expressed regret at his departure were quick to congratulate him upon his promotion.

Mr. Jacobi has been with the Wadhams organization for the past eight years. He went into the purchasing department soon after graduating from the University of Wisconsin, and remained in the Milwaukee office for two and a half years before coming to Tulsa to open the office here. Since that time he has done practically all of the light oil buying for the company in this territory.

While he will make his future home in Milwaukee, Mr. Jacobi said he expected to visit the Mid-Continent about once a month.

LOUISVILLE, Ky.—Standard Oil Co. of Kentucky is erecting service stations here, and at Providence, Mt. Sterling, Georgetown, Ft. Mitchell and Ashland, all Kentucky points.

DURHAM, N. C.—N. O. Kilpatrick, formerly agent for the Texas Co. here, has been promoted to salesman with headquarters at Monroe, N. C.

New Patents

June 28

Refining

Aluminum-Chloride Production.—Edson R. Wolcott, Los Angeles, Calif., assignor to The Texas Co., New York, N. Y. Filed Feb. 2, 1921. No. 1,633,835.

Method of Revivifying Spent Adsorbents for Oil Treatments.—Paul W. Prutzman, Los Angeles, Calif. Filed Sept. 2, 1922. No. 1,633,871.

Means for Preventing Acidity in Oils.—Clarence J. Rodman, Wilkinsburg, Pa., assignor to Westinghouse Electric & Manufacturing Co. Filed March 12, 1925. No. 1,633,956.

Dephlegmator.—Richard Girard Jones, Hynes, Calif. Filed Jan. 13, 1926. No. 1,633,990.

Petroleum-Oil Composition.—Albert A. Somerville, Flushing, N. Y., assignor of two-thirds to R. T. Vanderbilt Co., New York, N. Y. Filed June 19, 1926. No. 1,634,054.

Method and Mechanism for Removing Centrifuge Effluents.—Leo D. Jones, Philadelphia, Pa., assignor to The Sharples Specialty Co., Philadelphia, Pa. Filed Oct. 7, 1921. No. 1,634,242.

Method and Mechanism for Centrifugal Treatment of Substances.—Leo D. Jones, Philadelphia, Pa., assignor to The Sharples Specialty Co., Philadelphia, Pa. Filed Oct. 7, 1921. No. 1,634,243.

Centrifugal Separator.—Leo D. Jones, Philadelphia, Pa., assignor to The Sharples Specialty Co., Philadelphia, Pa. Filed Oct. 7, 1921. No. 1,634,244.

Centrifugal Machine and Process Involving the Use of the Same.—Leo D. Jones, and Arthur U. Ayres, Philadelphia, Pa., assignors to The Sharples Specialty Co., Philadelphia, Pa. Filed May 1, 1924. No. 1,634,245.

Production

Snap-On Sucker-Rod Guide.—Ralph R. Bostic, Los Angeles, Calif. Filed May 1, 1926. No. 1,633,843.

Well-Drilling Apparatus.—John W. MacClatchie, Compton, Calif. Filed Nov. 18, 1925. No. 1,633,945.

Underreamer.—Edward Timbs, Los Angeles, Calif., assignor to Union Tool Co., Torrance, Calif. Filed Aug 4, 1923. No. 1,634,001.

Oil-Well Regulation Method and Means.—Joseph F. Ryan, Chicago, Ill. Filed July 13, 1925. No. 1,634,085.

Method of and Apparatus for Recovering Oil.—Leo Ranney, Jacksboro, Tex., assignor to Standard Development Co. Filed Dec. 31, 1923. No. 1,634,235.

Method of and Apparatus for Recovering Oil. Leo Ranney, Jacksboro, Tex., assignor to Standard Development Co. Filed March 10, 1925. No. 1,634,236.

Natural Gasoline

Apparatus for Analyzing Gases.—Julius Alsberg, New York, N. Y. and Paul J. Ralph, Trenton, N. J., said Ralph assignor to said Alsberg. Filed May 18, 1917. No. 1,633,881.

Miscellaneous

Tank Car.—Fred G. Garlick, Chicago, Ill., assignor to General American Tank Car Corp., Chicago, Ill. Filed July 12, 1926. No. 1,633,811.

Oil-Well-Controlled Fire Extinguisher.—Ted Benjamin Hawley, Kevin, Mont. Filed Sept. 17, 1926. No. 1,633,813.

Process for Removing Suspended Matters from Oils and Organic Solvents.—Harry Hey, Dewsbury, England. Filed Nov. 26, 1921. No. 1,633,941.

Process for Removing Suspended Matters from Oils and Organic Solvents.—Harry Hey, Dewsbury, England. Filed Nov. 26, 1921. No. 1,633,942.

LOUISVILLE, Ky.—A service station has just been completed here by the Kentucky Consumers Oil Co. It served 1209 motors cars on the opening day, according to E. H. Hilpp, vice president and general manager.

The station displays the spread Red Eagle insignia of the I. O. M. A.

Bell Rings for Each Gallon

Automatic Piston Return

A Thoroughly Fine, Rugged, Easy-working Pump

Dials on Front and Back, Glass Covered

No Train of Gears to Rattle and Wear

Fast — 12 Turns for Five Gallons

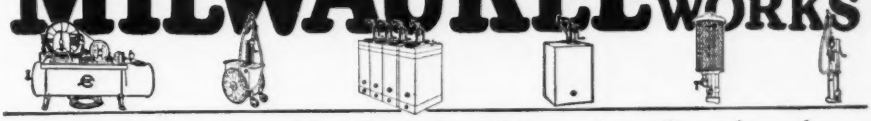
Large Output and Popular Priced

Send today for complete Catalog of Visibles, Compressors, etc.

MILWAUKEE TANK WORKS

MILWAUKEE, WISCONSIN
NEW YORK — Woolworth Bldg.

MILWAUKEE TANK WORKS



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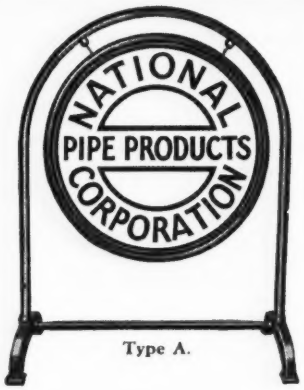
For July Shipment, a limited quantity of our No. 1754 Pure Pennsylvania oil of the following approximate specifications:

Gravity	30.5
Flash	410
Fire	465
Vis.	180 @ 100
Cold Test	25
Color	4 NPA

Guaranteed 100% PURE PENNSYLVANIA OIL

West Penn Oil Company

Wire-Write-Phone Warren, Pa. *Permit No. 515*



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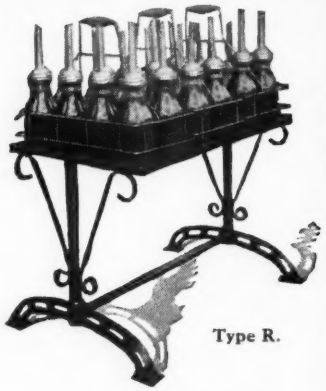

Type R.

National Curb Standards and Bottle Stands

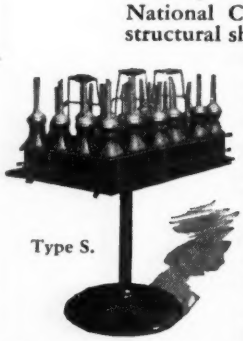
Used by the leading oil companies because of their scientific and artistic design, quality of workmanship, serviceability and distinctiveness.

National Curb Standards are built of pipe or structural shapes in large or small quantities.

National Bottle Stands are built in only two types "R" and "S" as shown, each design accommodating 3 (8 bottle) baskets.

We also manufacture to specifications any type of pipe or structural curb standard or cantilevers for overhanging signs.

Write today stating your requirements and receive our attractive prices and descriptive literature.


Type S.

Type B.

NATIONAL PIPE PRODUCTS CORP.
Main Office and Factory, ROCHESTER, PA.

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Standardize on Allison Coupon Books—There are none better made.

Your customers as well as your accounting department will like them, for they are absolutely accurate and therefore trouble-free.

Write us for samples and prices

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RELIABILITY COMES FIRST

Year after year, users of Niagara Oil or Gasoline Meters depend on them for reliable measurement of petroleum products in any quantity. Their accuracy is constant---the meters are simple and trouble proof---installation is easy. Write us for catalog.

NIAGARA OIL METERS

Built Since 1892 By

BUFFALO METER COMPANY

2889 Main Street :-: :-: **Buffalo, N. Y.**

New Stations Built or Being Built

Corry, Pa.—Two filling stations will be erected here, one by Oscar Frits and one by R. H. Van Tassel, owner of the Diamond Filling Station at North Corry.

Macomb, Ill.—Great Lakes Oil Corp. is building service station.

Bridgeport, Conn.—The Texas Co. seeks permit for filling station.

Amarillo, Tex.—R. C. Jopling is building bulk station.

Indianapolis, Ind.—Campbell Oil Co. will complete five filling stations here this season, according to G. D. Campbell, manager.

Louisville, Ky.—Stoll Oil Refining Co. is building service station here and one at Jeffersonville, Ind.

Flushing, O.—Alfred Workman, of New Athens, O., has purchased site for filling station.

Huntington, W. Va.—Harlan Parsons to build filling station.

Springfield, O.—Louisiana Oil Refining Corp. is building service station.

Gower, Mo.—Home Oil & Gas Co., St. Joseph, Mo., will build filling station here.

Columbia, Mo.—Roxana Petroleum Corp. will erect filling station.

Toronto, O.—Freedom Oil Co. will erect service station.

Manhattan, Kan.—Beach Oil Co. will build filling station.

Kansas City, Kan.—Eli Burnovich is completing filling station.

Redwood Falls, Minn.—E. J. Quayle, of Clarkfield, will operate the filling station being built here, handling Standard Oil products.

Atlantic City, N. J.—The Atlantic Service Stations Co., Chelsea National Bank Bldg., here, has been organized to operate service stations.

New Hampton, Ia.—Standard Oil Co. of Indiana will complete service station here by Aug. 1.

Farmington, Minn.—L. F. Scott, of Oxboro Heath, has purchased property for bulk and service station here.

Rushford, Minn.—Standard Oil Co. of Indiana is completing filling station.

Hurley, Wis.—Supreme Oil Co., just organized here by Frank and Joseph Gentile, Joe Francis and Frank Stella, will operate and build bulk and filling stations.

Glendive, Mont.—Hughes Oil Co. is contemplating service station.

Council Bluffs, Ia.—Standard Oil Co. of Indiana will build filling station.

Edina, Mo.—Knox County Oil Co. completing filling station.

Westville, Okla.—Larry Shackleford is building filling station.

De Soto, Mo.—Crystal City Fuel & Oil Co. is erecting filling station, to handle Shell products.

Forest City, N. C.—A $10,000 service station is being completed by the Harris Oil Co. at Lake Lure, which will be equipped with a Bowser "Illuminated Oil Fountain."

The last gap in state highway No. 20 has been concreted at Furtherfordton, N. C., which is known as the main street of North Carolina. It runs from mountain to sea shore, according to J. T. Harris, secretary and treasurer.

ON THE LAZY BENCH

National Petroleum News

Pete's Marketgram

Dear Gang:

Well folks, how time do fly and ain't we got heat. Things have been moving in high gear since I wrote you last, possibly that fourth speed we hear so much about.

Since that tea sipper from England came over here with his gasoline bus a few weeks ago and kicked off something better than two hundred miles per hour, they have started flying to Europe so easily that when about one more makes the hop across the Atlantic they will be merely tourists among our European debtors.

Now they are flying to Hawaii where they have the grass skirt at its best. It took a couple of U. S. Army fliers to do it first, however a couple of civilians started first, but forgot their lawn mowers so turned back, then the Army kidos who forgot nothing did the trick.

While the dear public is getting quite some kick out of all this aviation chatter of late it seems to me that this Television thing holds more possibilities than anything that has happened since Mr. Drake struck oil, and for one I'm doing some concentrated wishing for the general adoption of those phones where one can hear some and see a lot.

Of course, there is bound to be some bad features, such as a few old fashioned folks who at times will not be able to answer the phone by jumping out of the tub; busy executives with one free hand and a paralyzed knee will use a messenger to cancel dinner engagements at home and on top of that most of us can think of a few other bad features ourselves.

But regardless of all that, there is just a heap of good, yes very good features which some of you also have in mind so I'll not mention them, however I'm going to do a heap of Saturday night phoning myself.

Well, gang, getting down to the oil business and associated troubles, we note most every day of some sort of cut at Pickaway, Podunk, Gourd Center, Pumpkin Hollow and other auto ports, principally in relation to gasoline, and the part that is hardest to laugh off is that in most cases the fellow who has pruned the price is one who has been twenty to thirty per cented almost to death by the family banker, till today they think the dollar sign is the S.O.S. sign.

Acey Funkhouser, the pre-embalmed up-state jobber friend of the boss was in the other day and said he already has his reserved seat for a reproduction of the Follies of 1923 that will probably be staged a little later on this year.

Naturally I don't know and don't even suspect, but if Acey's chin chatter is right, then I'm going to raise right up in the meeting and second the motion to change the motto on the dollar from "In God We Trust" to something like "Abide With Me!" S'long.

Pete Roleum, Office Boy.
Refiners Consolidated Sales Co.
Wichita Kansas.

* * *

The Unknown

The proprietor of a restaurant noticed a sandwich which had been on the shelves for several hours. Approaching one of the girls, he inquired:

"What's wrong with that sandwich?"

"Nothing, sir," the girl replied.

"Well, then, why don't you sell it?"

"We haven't sold it," the girl explained, "because none of us knows what kind of a sandwich it is."

—Skelly News

* * *

Every Tripper Should Own One

TEXAS EXCURSION—Feb. 19th only $50. Round trip everything included, wife $25.00.—Ad in a Decatur paper.

—Bridgeport Driller

* * *

Geography

"Is the world round?" a school ma'am asked the little boy.

"No'm."

"It isn't, eh? Is it flat, then?"

"No'm."

"Are you crazy, child? If the world isn't round and it isn't flat, what is it?"

"Pop says it's crooked."

—Magnolia Oil News

* * *

He (at four o'clock in the morning)—"What's the idea of all the milk bottles?"

She—"If the neighbors hear me they'll think it's the milkman."

—Barnsdall

* * *

What Price the Melodeon?—"A ukulele," said Uncle Eben, "is small but influential. It is de hip flask of music."

Bridgeport Driller

New Box Type Case

Completely equipped with bottles and jars . . . $15.75

269—A real oil sales case, covered with smooth black cowhide. Lined with red velvet. Case contains fourteen 4-ounce bottles and ten ¼-ounce squat grease jars held in position by adjustable bars. Bottles are partitioned separately.

Less 10% for Cash
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Niece Petroleum Co.

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This SIGN is a *Satisfaction Signal* to motorists!

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REG. U. S. PAT. OFF.

Seals Power at every Degree of Wear

WHEN a motorist buys oil at the station which displays this sign, he gets *correct lubrication*—and the Dealer gets more steady business, because the motorist is satisfied!

The method for recommending Opaline Motor Oil (used only by Authorized Opaline Dealers) is an outstanding success! That's because it is the correct method, based on the Sinclair Law of Lubrication. It provides different grades of Opaline to fit the different degrees of wear in automobile engines, as indicated by the mileage on motorists' speedometers. Opaline Dealers ask the motor oil customer his mileage—consult the Sinclair Recommendation Index, and then give him the correct grade. The motorist feels the difference in his car immediately and remembers which Dealer gave him that difference!

May we tell you about this successful method of selling *correct lubrication* with the full line of Opaline Motor Oils?

SINCLAIR REFINING COMPANY, INC.

Also Makers of Sinclair Gasoline and H-C Gasoline

45 NASSAU STREET, NEW YORK

Atlanta Boston Chicago Houston Kansas City

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Oklahoma Gasoline Prices Hold Up Under July 4 Stimulus

Staff Special
TULSA, July 9

THE favorable gasoline consumption weather over the Fourth of July is now history, but the business the weather caused for Mid-Continent refiners, and its effect on gasoline prices is still being thought of here.

As salesmanagers closed their desks today most of them were highly pleased with the volume of goods moved this five-day week. They had established a 7-cent bottom price for 58-60 U. S. Motor gasoline to the trade immediately after the Fourth, and they had held their prices at 7 to 7.25 cents throughout the week.

Several pointed out today that normally jobbers order out a little more gasoline before a holiday than they actually need. They are anxious to have the goods either en route or at destination by the day after the holiday. Consumption does not come up to their expectations and they have some stocks on hand which they must work off before ordering more.

The heavy increase in shipments the week before July 4, as shown by NATIONAL PETROLEUM NEWS refinery statistics in July 6 issue, page 34, indicated jobbers were doing their usual pre-holiday ordering.

Refiners were a little apprehensive from past experiences. They frankly expected a lull to follow, but according to daily sales reports gathered by Platt's Oilgram from Oklahoma refiners that have 81.8 per cent of the operating capacity of the state, sales in the two days after July 4 were near the high levels just before the holiday. That was taken as an indication that consumption was larger than had been anticipated. The lull came about the middle of the week, but as the week ended shipments were again steadily picking up.

Opinions were about evenly divided as to what next week will net in the way of business. Several salesmanagers believed the increase in business late this week was a forerunner of a better demand for gasoline next week. Others contended the district would do well to keep the market at the present price level for much longer than the middle of July. All agreed that next week probably would reveal the future of gasolines for July and at least a part of August.

The station men's strike in Chicago was too recent to have any effect on the market this week. There has been a factor this month, however, that has been causing some concern to a few salesmanagers. They report that they have been running into competition with gasolines sold over the month, 58-60 U. S. Motor especially at prices ranging from 6.50 to 6.75 cents.

While the jobbing demand for gasolines has been good, refiners that have their own distributing systems, report that retail business also has been good. One refinery salesmanager said Friday that his station business so far this month had been more than 30 per cent larger than in the corresponding period in June.

Buying of natural gasoline around July 1 was sufficient to keep prices generally unchanged this week, although no large amount of activity was reported either in Oklahoma or Texas. The hot weather is causing more grade BB to be manufactured now, with a corresponding decrease in output of grade C. Doctor and corrosion test grade A, especially low gravity goods, brought a slightly better price this week but the A and AA grades have been unable to get far away from the price level of the lower grades.

THERE were indications late this week that several buyers were preparing to enter the market by July 15 for their requirements for the remainder of this month. If this buying is of sufficient volume, one manufacturer said today, manufacturers will be able to ride the remainder of July in good shape.

Kerosene prices did not change this week. Demand was somewhat better, refiners reported, especially for one, two and three car orders. No large order buying was reported.

Distillate prices moved up slightly, both in Oklahoma and Texas. Quotations on 38-40 straw distillate are ranging from 3.25 to 3.75 cents a gallon. One refiner who has curtailed production of distillate considerably after moving a quantity several weeks ago which he had in storage since last winter, is getting 3.50 cents from customers who also buy gasoline from him, but is holding his price at 3.75 cents on all other orders.

Shipments of distillate increased in June, which probably accounts for most of the increase in price. The opinion is general that most of the goods being bought now is going into storage.

GAS oil in Oklahoma is pegged at 2.75 cents a gallon, and demand has been good so far this month. Some of the goods being bought now are moving, no doubt, to storage for sale next winter by jobbers who have built up a home heating business. Refiners also continue to buy some gas oil for cracking next winter.

The Louisiana-Arkansas refiners have not enjoyed their usual volume of business in gas oil this season. The rice growers in that territory have had too much water at times, and they have not been forced to use pumps. The salesmanager of an Arkansas refinery, in Tulsa this week, said the gas oil season in the rice fields was about over, and that to date he had done only about a third of the business he did last year. The same ratio of trade held true for the other refiners, he said.

Fuel oil prices have been steady with no indication of a weakening in price this month. Industrial users have been so active the last few weeks that the market has had no opportunity to slip.

An Oklahoma refiner this week sold 50 tons of 124-126 white crude scale wax at 2.375 cents a pound. Another Oklahoma refiner booked orders at 2.50 cents. Several refiners were quoting up to 2.625 cents. Offers to buy at under 2.375 cents were reported to be numerous, but refiners indicated they were not interested at that price.

The movement of Oklahoma neutral oils and cylinder stocks has been good, several refiners reported. Prices have been practically unchanged for several weeks.

PUEBLO, Colo.—A super-service station was opened here by The Jewel Co., Inc. on May 15, according to M. G. Pulley, secretary.

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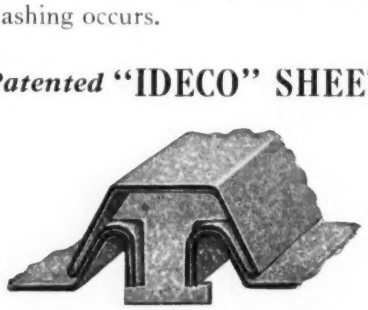

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Refinery Markets on Light Oils and Lubricants

Prices given below are in cents per gallon, F. O. B. refinery, except where $ sign is shown

(These Refinery Prices compiled in the OIL PRICE HANDBOOK for a whole year)

GASOLINE AND NAPHTHA

PENNSYLVANIA	Prices July 11	Prices July 5	Prices June 27
52-54 Naphtha	8.75 – 9.25	8.75 – 9.25	8.75 – 9.50
54-56 Naphtha	9.00 – 9.50	9.00 – 9.50	9.00 – 9.75
58-60 Gasoline	8.75 – 9.00	8.75 – 9.00	9.00 – 9.25
60-62 Str.-run gasoline	9.50 –10.00	9.50 –10.50	9.25 –10.00
64-66 Str.-run gasoline	10.00 –10.50	10.25 –10.75	10.25 –10.75
68-70 Str-run gas. 350-360 e.p.	10.50 –11.50	10.50 –11.50	11.00 –11.75
OKLAHOMA			
48-50 450 e.p. naphtha	6.625	6.625	6.50
50-52 450 e.p. naphtha	6.625	6.625	6.50
56-58 450 e.p. gasoline	6.75	6.625– 6.75	6.50
56-58 U. S. Motor, 437 e.p.	††6.875	††6.75	††6.625
58-60 450 e.p. gasoline	6.75 – 7.00	6.75 – 7.00	6.50 – 6.625
58-60 U. S. Motor, 437 e.p.	7.00 – 7.25	7.00 – 7.25	6.625– 7.00
60-62 437 e.p. gasoline	7.00 – 7.375	7.00 – 7.25	6.75 – 7.125
60-62 400 e.p. gasoline	**7.00 – 7.75	**7.25 – 7.75	**6.875– 7.50
64-66 390 e.p. gasoline	**7.25 – 7.75	**7.25 – 7.75	**7.00 – 7.50
64-66 375 e.p. gasoline	**7.375– 7.875	**7.375– 7.875	**7.25 – 7.75
68-70 350-360 e.p. gasoline	**7.75 – 8.00	**7.75 – 8.00	**7.50 – 8.00
KANSAS (F. O. B. refinery Kansas destination)			
58-60 U. S. Motor 437 e.p.	7.25 – 7.50	7.25 – 7.50	7.00 – 7.25
60-62 400 e.p. gasoline	7.50 – 7.625	7.50 – 7.625	7.25 – 7.50
64-66 375 e.p. gasoline	7.50 – 7.75	7.50 – 7.75	7.50 – 7.75
NORTH TEXAS			
48-52 450 e.p. naphtha	†6.25	†6.25	†6.25
56-58 450 e.p. gasoline	†6.25 – 6.375	†6.25	†6.25
58-60 450 e.p. gasoline	6.375– 6.50	6.25 – 6.375	6.25 – 6.375
56-58 U. S. Motor 437 e.p.	....	....	††6.25
58-60 U. S. Motor 437 e.p.	6.50 – 6.75	6.50	6.50
60-62 400 e.p. gasoline	....	6.75 – 7.00	6.75 – 6.875
64-66 390 e.p. gasoline	7.00	7.00	....
64-66 375 e.p. gasoline	7.00 – 7.125	7.00 – 7.125	7.00
68-70 350-360 e.p. gasoline	*7.25 – 7.50	*7.25 – 7.50	*7.25 – 7.50
NORTH LOUISIANA (For Louisiana and differential territory destination)			
56-58 U. S. Motor gasoline	7.25	7.25 – 7.375	7.00 – 7.25
ARKANSAS (For Arkansas intrastate shipment)			
56-58 450 e.p. gasoline	6.75 – 7.00	6.75 – 7.00	6.75 – 7.00
58-60 450 e.p. gasoline	6.75 – 7.00	6.75 – 7.00	6.75 – 7.00
58-60 U. S. Motor 437 e.p.	7.25 – 7.375	7.25 – 7.375	7.25
ARKANSAS (F. O. B. Arkansas refineries for interstate shipment)			
58-60 U. S. Motor 437 e.p.	7.00 – 7.25	7.00 – 7.25	6.75 – 7.00
CALIFORNIA			
*54-58 U.S. Motor 437 e.p.	8.00 – 9.50	8.00 – 9.50	7.50 – 8.50
*58-61 U.S. Motor 437 e.p.	9.00 –10.50	9.00 –10.50	8.50 – 9.00
*42-45 Eng. dis. 445-480 e.p.	7.00 – 7.50	7.00 – 7.50	6.00 – 7.00
*2c tax to be added if used in state.			
NEW ENGLAND			
58-60 U. S. Motor gas	9.42	9.35	9.85

NATURAL GASOLINE

(Note: End point of all grades, not over 375° F.)

OKLAHOMA			
Grade AA, 80-87.9, 90% Recovery	4.50 – 4.75	4.50 – 4.75	4.50
Grade A, 72-79.9, 90% Recovery	4.50 – 4.75	4.50 – 4.75	4.50
Grade BB, 84-92, 85% Recovery	4.375	4.375	4.375– 4.50
Grade B, 76-83.9, 85% Recovery	4.375	4.375	4.375– 4.50
Grade C, 80-90, 78% Recovery	4.375	4.25 – 4.375	4.375
NORTH TEXAS (F. O. B. Breckenridge)			
Grade AA, 80-87.9, 90% Recovery	4.50 – 4.625	4.50 – 4.625	4.50
Grade A, 72-79.9, 90% Recovery	4.50 – 4.625	4.50 – 4.625	4.50
Grade BB, 84-92, 85% Recovery	4.375	4.375	4.375– 4.50
Grade B, 76-83.9, 85% Recovery	4.375	4.375	4.375– 4.50
Grade C, 80-90, 78% Recovery	4.375	4.25 – 4.375	4.375
NORTH LOUISIANA (F. O. B. Monroe District)			
Grade AA	†5.00	†5.00 – 5.125	†5.00 – 5.125
Grade BB	††4.875	†5.00	†5.00
Grade C	††4.625– 4.75	†5.00	†5.00
CALIFORNIA			
75-85, 375-390 e.p. blend	8.00 –10.50	8.00 –10.50	7.50 –10.00

MOTOR FUEL BLENDS

PENNSYLVANIA			
68-70 Blend 437 e.p.	....	....	9.00 – 9.25
64-66 Blend 437 e.p.	....	....	8.75 – 9.25
60-62 Blend 437 e.p.	....	....	8.75 – 9.25
OKLAHOMA			
64-66 Blend 437 e.p.	6.125– 6.50	6.125– 6.50	6.125– 6.25

BURNING OILS

PENNSYLVANIA			
45 w.w. kerosene	6.00 – 6.25	6.125– 6.25	6.25 – 6.50
46 w.w. kerosene	6.50 – 6.75	6.50 – 6.75	6.75 – 7.00
47 w.w. kerosene	7.00	7.00	7.25 – 7.50
OKLAHOMA			
41-43 w.w. kerosene	4.00 – 4.25	4.00 – 4.25	4.00 – 4.25
42-44 w.w. kerosene	4.25 – 4.50	4.25 – 4.50	4.25 – 4.50
KANSAS (F. O. B. refinery Kansas destination)			
41-43 w.w. kerosene	5.00	5.25	5.25
42-44 w.w. kerosene	5.25 – 5.50	5.50	5.50
NORTH TEXAS			
40-42 w.w. kerosene	†3.75	†3.75	†3.75
41-43 w.w. kerosene	3.875– 4.00	3.875– 4.00	3.875– 4.00
NORTH LOUISIANA (For Louisiana and differential territory destination)			
41-43 w.w. kerosene	†4.50 – 4.75	†4.50 – 4.75	†4.50 – 4.75
ARKANSAS (For intrastate shipment only)			
41-43 kerosene	4.25	4.50	4.50
42-44 kerosene	4.50	4.75	4.75
ARKANSAS (F. O. B. Arkansas refineries for interstate shipment)			
41-43 kerosene	4.00 – 4.25	4.375– 4.50	4.375– 4.50
42-44 kerosene	4.25 – 4.375	4.625	4.625
CALIFORNIA			
38-40 w.w. kerosene	5.00 – 6.00	5.00 – 6.00	5.00 – 6.00
NEW ENGLAND			
40-43 w.w. kerosene	††7.25	††7.50	††7.50

NEUTRAL OIL

PENNSYLVANIA Vis.	(Viscosity at 70°F.)		
200 No. 3 Assoc. Filt.	34.00 –35.00	34.00 –35.00	34.50 –35.00
180 No. 3 Assoc. Filt.	31.00 –32.50	31.00 –32.50	31.00 –32.50
150 No. 3 Assoc. Filt.	27.75 –28.50	27.75 –28.50	27.75 –28.50
	(Non Viscous)		
34 Grav. 330-340 Flash	7.00 – 7.75	7.00 – 7.75	7.00 – 7.75
36 Min. Neut. 300-305 Flash	6.50 – 7.25	6.50 – 7.25	6.50 – 7.25
**OKLAHOMA Vis. Color	(Viscosity at 100°F.)		
100—No. 2	6.00 – 7.50	6.00 – 7.50	6.00 – 7.50
150—No. 3	8.50 – 8.75	8.50 – 8.75	8.50 – 8.75
150—No. 4	8.25 – 8.50	8.25 – 8.50	8.25 – 8.50
180—No. 3	9.50 –10.25	9.50 –10.25	9.50 –10.25
180—No. 4	9.75	9.75	9.75
180—No. 5	9.50 – 9.75	9.50 – 9.75	9.50 – 9.75
200—No. 3	10.00 –11.00	10.00 –11.00	10.00 –11.00
200—No. 4	10.50 –10.75	10.50 –10.75	10.50 –10.75
200—No. 5	9.00 –10.50	9.00 –10.50	9.00 –10.50
220—No. 3	12.50 –13.50	12.50 –13.50	12.50 –13.50
220—No. 4	12.25 –12.50	12.25 –12.50	12.25 –12.50
220—No. 5	11.50 –12.00	11.50 –12.00	11.50 –12.00
240—No. 3	14.00 –15.00	14.00 –15.00	14.00 –15.00
240—No. 4	13.50	13.50	13.50
240—No. 5	12.00 –13.00	12.00 –13.00	12.00 –13.00
280—No. 3	16.00 –17.00	16.00 –17.00	16.00 –17.00
280—No. 4	15.25	15.25	15.25
280—No. 5	14.00 –15.00	14.00 –15.00	14.00 –15.00
300—No. 5-6	17.00	17.00	17.00
**GULF COASTAL Vis. Color	(Viscosity at 100° F., pour test 0)		
100—No. 2 Unfilt. Pale	7.00 – 7.50	7.00 – 7.50	7.00 – 7.50
200—No. 3 Unfilt. Pale	10.00 –11.00	10.00 –11.00	10.50 –11.00
300—No. 3 Unfilt. Pale	11.00 –12.00	11.00 –12.00	11.50 –12.00
500—No. 3½ Unfilt. Pale	13.00 –14.00	13.00 –14.00	13.50 –14.00
750—No. 4 Unfilt. Pale	15.00 –16.00	15.00 –16.00	16.00 –16.50
200—No. 5½ Red Oil	8.50 – 9.00	8.50 – 9.00	8.50 – 9.00
300—No. 5½ Red Oil	9.50 –10.00	9.50 –10.00	10.00 –10.50
500—No. 6 Red Oil	11.00 –11.50	11.00 –11.50	11.50 –12.00
750—No. 6 Red Oil	14.00 –14.50	14.00 –14.50	14.50 –15.00
**CALIFORNIA Vis. Color	(Viscosity at 100°F.)		
100—No. 2	9.00 – 9.50	9.00 – 9.50	9.00 – 9.50
100—No. 3	7.50 – 8.00	7.50 – 8.00	7.50 – 8.00
200—No. 3	9.50 –10.00	9.50 –10.00	9.50 –10.00
300—No. 3	10.50 –11.00	10.50 –11.00	10.50 –11.00
450—No. 3-3½	13.00 –13.50	13.00 –13.50	13.00 –13.50
550—No. 3-3½	14.50 –15.00	14.50 –15.00	14.50 –15.00
600—No. 3-3½	15.00 –15.50	15.00 –15.50	15.00 –15.50
100—No. 5	6.50	6.50	6.50
200—No. 5	8.00 – 8.50	8.00 – 8.50	8.00 – 8.50
300—No. 5	9.00 – 9.50	9.00 – 9.50	9.00 – 9.50
400—No. 5	11.00 –11.50	11.00 –11.50	11.00 –11.50
500—No. 5	11.00 –11.50	11.00 –11.50	11.00 –11.50
600—No. 5	12.00 –12.50	12.00 –12.50	12.00 –12.50
700—No. 7	14.00 –14.50	14.00 –14.50	14.00 –14.50

CYLINDER STOCKS

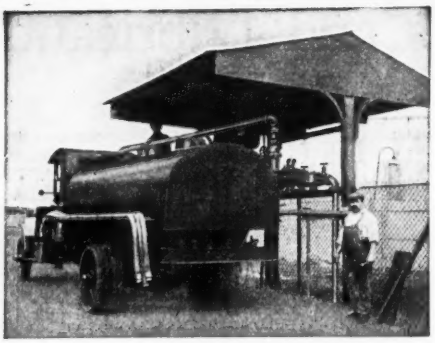
**OKLAHOMA			
190-200 Vis. at 210° Brt. St.	31.00 –32.00	31.00 –32.00	31.00 –32.00
150-160 Vis. at 210° Brt. St.	26.00 –28.00	26.00 –28.00	26.00 –28.00
600 E St. 140-150 Vis.-210°	17.00 –18.00	17.00 –18.00	17.00 –18.00
600 St. Ref. Olive Green	9.00 –10.00	9.00 –10.00	9.00 –10.00
600 St. Ref. Dark Green	7.00 – 8.00	7.00 – 8.00	7.00 – 8.00
Black Oil	5.00	5.00	5.00
PENNSYLVANIA	(1-inch Immersion Test)		
600 Steam Refined	8.50 – 9.50	8.50 – 9.50	9.00 – 9.50
650 Steam Refined	11.50 –12.50	11.50 –12.50	12.25 –13.25
600 Flash	17.00 –18.00	17.00 –18.00	17.00 –18.00
625 Flash	25.50 –27.00	25.50 –27.00	27.00 –29.00
600 Warren E	19.00 –20.00	19.00 –20.00	18.00 –20.00
600 Oil City E	17.00 –18.00	17.00 –18.00	17.00 –18.00
600 D Filtered	25.00 –26.00	25.00 –26.00	25.00 –26.00
Cold Test Stocks (brt. filt.)	32.50 –33.50	33.00 –34.00	33.00 –34.00
Cold Test Stock (dark filt.)	31.00 –32.00	31.00 –32.00	31.00 –32.00

(Note—Prices of total immersion test goods average 1 to 3 cents per gallon higher)

LONG RESIDUUM STOCKS

PENNSYLVANIA			
60-65 vis. @ 210, 440-450 flash No. 5½ color	33.50	33.50	33.50
70-75 vis. @ 210, 450-455 flash No. 6 color	34.00 –34.50	34.00 –34.50	34.00 –34.50
80-85 vis. @ 210, 440-450 flash No. 7 color	36.00	36.00	36.00
80-85 vis. @ 210, 450-460 flash No. 7-8 color	36.50	36.50	36.50
80-85 vis. @ 210, 460-465 flash No. 7 color	36.00 –37.00	37.00	37.00
95-100 vis. @ 210, 490-495 flash No. 8 color	38.50	38.50	38.50

†PRICES NOMINAL ††ONLY ONE REFINER QUOTING *QUOTATION ONLY **REPRESENTS BOTH SALES AND QUOTATIONS



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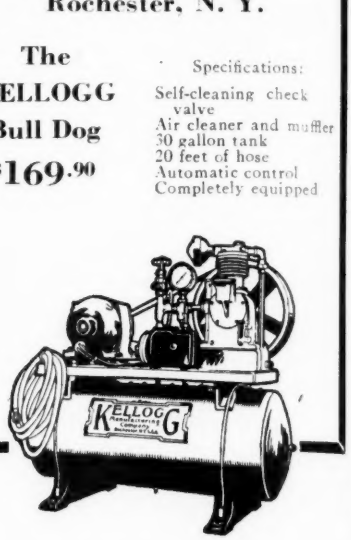

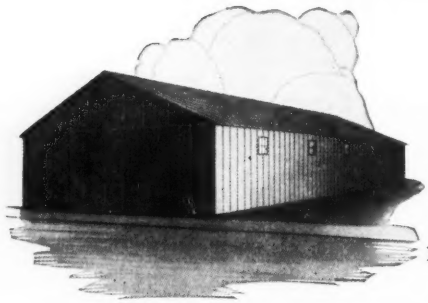

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Refinery Markets on Wax and Heavy Oil Products

Prices given below are in cents per gallon, F. O. B. refinery, except where $ sign is shown

(For quick reference to Refinery prices, get the OIL PRICE HANDBOOK, published annually)

WAX

*PENNSYLVANIA	Prices July 11	Prices July 5	Prices June 27
122-124 white crude scale.	3.00 – 3.25	3.125– 3.25	3.00 – 3.25
124-126 white crude scale.	3.00 – 3.25	3.125– 3.25	3.00 – 3.25
*Per Pound, New York			
OKLAHOMA			
*124-126 white crude scale, per pound	2.375– 2.625	2.375– 2.625	2.375– 2.625
*Represents quotations and sales.			
CALIFORNIA			
White crude scale, per pound	6.00 – 7.00	6.00 – 7.00	6.00 – 7.00

FUEL OIL

PENNSYLVANIA			
36-40 fuel oil	4.75 – 5.00	4.75 – 5.00	5.00 – 5.125
30-34 fuel oil	4.50 – 4.75	4.75 – 5.00	4.75 – 5.00
28-32 fuel oil	4.50 – 4.75	4.75 – 5.00	4.75 – 5.00
OKLAHOMA			
38-40 straw distillate	3.25 – 3.50	3.25 – 3.375	3.125– 3.25
36-38 straw distillate	3.00	3.00	3.00
32-36 gas oil, cracked	2.75	2.625– 2.75	2.625
32-36 gas oil, str. reduced	2.75	2.75	2.625 – 2.75
28-30 fuel oil (in bbls.)	$0.95 – 1.00	$0.95 –$1.00	$0.95 –$1.00
26-28 fuel oil (in bbls.)	$0.95	$0.95	$0.95
24-26 fuel oil (in bbls.)	**$0.90	*$0.90	*$0.90
22-26 fuel oil (in bbls.)	**$0.90	*$0.90	*$0.90
18-22 fuel oil (in bbls.)	**$0.90	$0.90	$0.90
16-18 fuel oil (in bbls.)	**$0.85–$0.875	*$0.85 – 0.875	*$0.85–$0.875
14-16 fuel oil (in bbls.)	**$0.85	$0.85	$0.85
†Prices nominal. *Represents Sales and Quotations.			
KANSAS (F. O. B. refinery Kansas destination.)			
38-40 straw distillate	3.50	3.50	3.50
36-38 straw distillate	3.25	3.25	3.25
32-36 gas oil	2.75 – 2.875	2.75 – 2.875	2.75
24-26 gas oil	*$1.05 – 1.10	*$1.05 –$1.10	*$1.05 –$1.10
18-22 fuel oil	*$0.90 – 1.00	*$0.95 – 1.00	*$0.95 –$1.00
*Quotations only.			
NORTH TEXAS			
38-40 straw distillate	3.00 – 3.25	3.00	3.00
32-36 gas oil, cracked	2.50 – 2.625	2.50	2.50
32-36 gas oil, uncracked	2.625	2.625	2.625
24-26 fuel oil (in bbls.)	$0.90	$0.875–$0.90	$0.875–$0.90

GULF COASTAL	Prices July 11	Prices July 5	Prices June 27
Fuel (in bbls.)	$1.60 –$1.65	$1.60 –$1.65	$1.60 –$1.65
Gas oil	4.25 – 4.375	4.25 – 4.375	4.50 – 4.75
NORTH LOUISIANA (For Louisiana and differential territory destination)			
32-36 gas oil, cracked	3.00 – 3.25	3.00 – 3.25	3.00 – 3.25
32-36 gas oil, uncracked	3.25	3.25	3.25
16-20 fuel oil (in bbls.)	$1.125–$1.15	$1.125–$1.15	$1.125–$1.15
ARKANSAS (For Arkansas intrastate shipment only)			
32-36 gas oil, straw	3.25	3.25	3.25
28-32 gas oil	3.00 – 3.25	3.00 – 3.25	3.00 – 3.25
Road oil	$1.25 –$1.30	$1.25 –$1.30	$1.25 –$1.30
ARKANSAS (F. O. B. Arkansas refineries for interstate shipment)			
28-32 gas oil	2.75 – 3.00	2.75 – 3.00	2.75 – 3.00
Smackover crude fuel	$1.10 –$1.15	$1.10 –$1.15	$1.10 –$1.15
Road oil	$1.15 –$1.25	$1.15 – 1.25	$1.15 –$1.25
CALIFORNIA (F. O. B. San Joaquin Valley. At San Francisco, 4c per bbl. more)			
14-18 fuel oil (in bbls.)	$0.65 –$0.90	$0.60 –$0.90	$0.65 –$0.90
14-18 Bunker oil (in bbls.)	$0.80 –$1.00	$0.85 –$1.00	$0.85 –$1.00
30-34 gas oil (in bbls.)	$0.95 –$1.05	$1.00 –$1.05	$1.00 –$1.05
27 Plus Diesel oil (in bbls.)	$0.95 –$1.05	$1.00 –$1.05	$1.00 –$1.05
NEW ENGLAND			
30-32 gas oil	5.45	5.50	5.50
Fuel oil (Bunker C) in bbls.	$1.72	$1.73	$1.77

PETROLATUMS

PENNSYLVANIA (In cents per pound in tank cars; in barrels, in car lots ¼c per pound more.)			
Snow White	7.25 – 7.50	7.25 – 7.50	7.25 – 7.50
Lily White	6.25	6.25	6.25
Cream White	5.25	5.25	5.25
Light Amber	2.625– 2.75	2.625– 2.75	2.625– 2.75
Amber	2.375– 2.50	2.375– 2.50	2.375– 2.50
Red	2.125	2.125	2.125
Green No. 5 color	1.50	1.50	1.50

*PETROLEUM COKE

(Per ton in car lots)

Lump	$5	$5	$5
Still run	$3	$3	$3
Breeze	$2	$2	$2

*Represents quotations and sales.

Demand Spurts but Large Supply Keeps East Coast Price Down

By Special Correspondent
NEW YORK, July 11

DEMAND for gasoline along the Atlantic Seaboard took a spurt last week. Influx of California gasoline and large stocks of motor fuel already on hand kept prices down. Jobbers report a good movement but are still keeping their own purchases down to immediate needs.

New York Harbor refiners reported a noticeable improvement in the demand from upstate. U. S. Motor gasoline in tank cars at the nearby terminals was quoted at 8.50 to 8.75 cents a gallon, and in tank cars delivered to the nearby trade at 9.50 to 9.75 cents a gallon. Tank wagon prices range widely. Reports from upstate range are that 12 cents is the price in some places. The posted tank wagon price in New York City is 19 cents but gasoline is selling considerably below this price to motorists.

Philadelphia refiners reported a slight improvement in gasoline demand. U. S. Motor was quoted at 8.50 to 8.75 cents a gallon at Philadelphia refineries. Stocks are large. California gasoline can still be laid down along the Seaboard at 8 to 8¼ cents a gallon in cargo lots.

Gulf refiners reported a depressed market. One refiner was willing to sell U. S. Motor gasoline in bulk cargoes of 7 cents a gallon to domestic buyers. To jobbers the price was 7.50 to 7.75 cents a gallon at the refineries.

Kerosene demand was hand-to-mouth along the Atlantic Seaboard. Most large New York Harbor refiners were quoting 41-43 water white at 6.50 cents a gallon refinery and 7.50 cents a gallon in tank cars delivered to the nearby trade, while 43-45 water white was quoted 0.25 cent above these prices which were down 0.25 cent for the week.

Gulf refiners reported a slight improvement in the domestic demand for kerosene but business was still confined to small quantities. Refiners look for a good movement in late summer. For 41-43 water white 5 cents was quoted and 44 water white was held at 6 cents a gallon in bulk at the refineries.

Benzol DemandGrows

By Special Correspondent

NEW YORK, July 11.—Consumption of motor benzol is on the upward swing but prices are still down in sympathy with gasoline. The inquiry for motor benzol has been more active although buyers appear more reticent to purchase ahead at the prevailing price of 21 cents a gallon in tank cars at the ovens. Production of coke is steady and benzol production consequently showed little change. Stocks of motor benzol are capable of taking care of current requirements. Demand from export buyers is lagging. Pure and 90 per cent benzol are in better demand at steady prices.

Correction

In the July 5 column of prices in the refinery market tables on page 115 of the July 6 issue, price of North Texas 60-62, 400 e.p. gasoline was published at 7 to 7.25 cents in error. Price on July 5 should have been 6.75 to 7.00 cents.

Also, prices on Kansas 24-26 and 18-22 fuel oils were transposed in the July 5 column. Prices of 24-26 should have been $1.05 to $1.10 and 18-22 should have been $0.95 to $1. Prices are corrected in the table in this week's issue.

Strike Fails to Disturb Chicago Resale Market for Gasoline

Staff Special.
CHICAGO, July 9.

ATTENTION of the oil trade the last two days was centered on the strike and lockout of major company tank truck drivers and service station attendants in Chicago, which began Friday morning and ended in a compromise agreement early Saturday afternoon. The spot market was not affected, except for an Oklahoma refiner who sold 15 cars of U. S. Motor gasoline to Chicago jobbers in the morning. Pumps at bulk storage plants did a land office business while the strike was on.

Warm, fair weather throughout this marketing territory over the July 4 holiday brought excellent gallonage to individually and company owned stations.

For the second consecutive week sellers reported much activity in 58-60 U. S. Motor gasoline. Some Oklahoma and Illinois refiners reported good volume of spot market sales and good movement on contract goods. while others reported business was average after the holiday. One carload marketer did an excellent business in the last two weeks. Another marketer, who sold much gasoline last week at 6.75 cents, said he expected a quiet week but Wednesday and Thursday did a good business and some of his customers telephoned for rush shipments or for goods enroute.

U. S. Motor gasoline from Oklahoma sold at 6.875 to 7 cents during the week, and north Texas U. S. Motor was quoted at 6.875 cents, Group 3, early in the week. Two refiners in the Indiana-Illinois area were selling at 7 cents, Group 3, this week, and a third refiner was sold up for the month. Today an Oklahoma refiner advanced his quotation to 7.25 cents, selling at 7 cents to regular customers and at 7.25 cents to occasional buyers.

A jobber bought five cars of U. S. Motor gasoline at 6.75 cents Thursday and got more goods later in the day at 6.625 cents. Another buyer in Chicago took some 41-43 water white kerosene at 2.75 to 3.50 cents and U. S. Motor gasoline at 5.50 to 6 cents, all prices Group 3, goods originating in differential territory for shipment into points east and south of Standard Oil Co. of Indiana territory.

Of the high tests, 60-62, 437 e.p. and 60-62, 400 e.p. were most active with demand good in Wisconsin and Northern Illinois. The 60-62, 437 e.p. grade sold at 6.875 to 7 cents early in the week and at 7 cents Thursday; the 60-62, 400 e.p. gasoline range was narrower this week, selling at 7.125 to 7.25 cents. The 64-66, 375 e.p. gasoline was 7.375 to 7.50 cents.

Kerosenes continued to be in little demand. The 41-43 w.w. grade sold at 4 to 4.25 cents with majority of sellers asking 4.125 cents. One marketer reported the 3.75 cents kerosene recently available for resale has been sold, and today was asking 4.125 cents for his goods.

Demand for heavy oils has been steady with industrial companies buying small quantities. Trade reported fuels now were easier to buy in the field than 10 days ago, with gas oil and distillate firm. The 38-40 straw distillate sold at 3.25 to 3.375 cents; 32-36 straw gas oil was quoted at 2.75 to 3.25 cents; 32-36 dark gas oil was 2.75 to 2.875 cents. The 28-30 fuel was $1.00 to $1.05; 24-26 was $0.95 early in the week with sales later at $0.925; 22-26 was $0.925 and 18-22 $0.90 to $0.925. Smackover continued to be quoted at $1.125 to $1.15, with sales this week at $1.12.

A jobber was inquiring Friday for 100,000 gallons of 38-40 straw distillate for storage. An Oklahoma refiner took five cars of this order, selling his special brand at 3.50 cents. This refiner reported contracting for more than 1,000,000 gallons of this distillate for next winter's consumption. A marketer this week sold 75 cars of 14-16 fuel oil for over July to an industrial company at $0.90 and made another 75-car sale of 14-16 fuel over August at the same price.

Occasional rainfall is forecast for next week in Standard of Indiana territory with temperatures near normal.

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Week's Price Changes Tank Wagon Markets

Gasoline Changes

Atlantic Refining—T.w. and s.s. prices gasoline advanced 1 cent, Philadelphia city, to 13 cents and 16 cents, exclusive of 2 cent state tax, July 6.

Standard of Kentucky—Correction: T.w. price of gasoline at Gulfport has been in error in the tank wagon table since May 14. On that date t.w. was cut 2 cents to 18.5 cents, instead of to 17.5 cents as has been published in the past issues.

Magnolia Petroleum — Correction: Price of gasoline at San Antonio including taxes have been in error as 15 cents beginning with the June 22 issue. Price including 3 cent tax should have been 18 cents, and without tax, 15 cents, since June 13.

Texas Jobber Seeks Pennsylvania Oils

Comanche, Tex., July 9.—The Adams Oil Co., which claims to be the largest jobber of lubricating oils between Fort Worth and El Paso, with headquarters at Comanche, is now in the market for 100% Pennsylvania oils to market with its naphtha base oils. The oil the company seeks must be nationally advertised, Vernon Adams, general manager, says.

The company is jobbing lube oils and greases only and has been incorporated under the laws of Texas. It is handling oils of Deepwater Refineries, Inc., Houston, in 20 counties of west central Texas under the name NU-PRO. Texaco gasoline is handled. The company operates three filling stations, one each at Comanche, De Leon and Dublin.

Gulf Lube Market Quiet

HOUSTON, July 9.—Gulf Coastal lubricant markets remain quiet as compared with movements in recent weeks, but salesmanagers report more business than a year ago. The 1927 prices, however, are less favorable than they were a year ago. A surplus of stocks of some grades exists, though others are reasonably well sold up. One manufacturer reports his plant is 15 cars behind on shipments of grades in largest demand.

Tank Wagon, Service Station Markets for Gasoline and Kerosene In United States Territories and Canada

(OIL PRICE HANDBOOK has t.w. and s.s. markets for whole year arranged for quick reference)

These Prices In Effect July 11, 1927

S. O. NEW JERSEY TERRITORY

	Gasoline T.W.	Gasoline Tax	Gasoline Total T.W.	Gasoline Total S.S.	Oil T.W.
Atlantic City, N. J.	16	2	18	*	14
Newark, N. J.	16	2	18	20	14
Annapolis, Md.	16	4	20	23	12
Baltimore, Md.	16	4	20	23	10
Cumberland, Ind.	16	4	20	23	14
Washington, D. C.	16	2	18	21	12
Danville, Va.	16	4½	20.5	*	14
Norfolk, Va.	16	4½	20.5	20.5	12
Richmond	16	4½	20.5	23.5	14
Roanoke, Va.	16	4½	20.5	23.5	14
Petersburg, Va.	16	4½	20.5	23.5	14
Williamsburg, Va.	16	4½	20.5	*	14
Charleston, W. Va.	16	4	20	23	13
Clarksburg, W. Va.	16	4	20	23	14
Keyser, W. Va.	16	4	20	*	14
Parkersburg, W. Va.	13	4	17	20	14
Wheeling, W. Va.	16	4	20	23	14
Charlotte, N. C.	16	4	20	23	14
Hickory, N. C.	16	4	20	23	14
High Point, N. C.	16	4	20	*	14
Mt. Airy, N. C.	16	4	20	23	14
Salisbury, N. C.	16	4	20	23	14
Charleston, S. C.	15	5	20	23	14
Columbia, S. C.	15	5	20	23	14

*Dealers set own prices. S. O. New Jersey does not operate station.

S. O. NEW YORK

Due to local price conditions at many points in S. O. New York territory, actual prices on both gasoline and kerosene are being made at under the posted tank wagon prices published below.

*New York City	19	0	19	23	15
Albany, N. Y.	19	0	19	21	15
Buffalo, N. Y.	15	0	15	18	14
†Rochester, N. Y.	13	0	13	16	13
Syracuse, N. Y.	19	0	19	21	15
Boston, Mass.	17	0	17	19	15
Augusta, Me.	19	3	22	25	15
Manchester, N. H.	17	2	19	21	15
Burlington, Vt.	19	2	21	23	15

*In steel barrels.

†It is reported that S. O. New York is selling a second grade of gasoline at Rochester, 4c below the above posted prices which apply on its Socony grade.

ATLANTIC REFINING

Pittsburgh, Pa.	16	*	16	*21	14
Philadelphia, Pa.	13	*	13	*18	14
Allentown, Pa.	16	*	16	*21	14
Erie, Pa.	12	*	12	*17	14
Scranton, Pa.	16	*	16	*21	14
Altoona, Pa.	16	*	16	*21	14
Dover, Del.	16	3	19	22	14
Wilmington, Del.	16	3	19	22	14
Providence, R. I.	17	2	19	21	15
Boston, Mass.	17	0	17	19	15
Springfield, Mass.	17	0	17	19	15
Worcester, Mass.	17	0	17	19	15
Hartford, Conn.	19	2	21	23	15
New Haven, Conn.	19	2	21	23	15

*2-cent state tax is collected by retail dealer and paid by him directly to state.

S. O. KENTUCKY

Lexington, Ky.	13	5	18	21	15.5
Louisville, Ky.	14	5	19	22	15
Covington, Ky.	14	5	19	22	15.5
Clarksdale, Miss.	13	4	17	20	12.5
Gulfport, Miss.	††14.5	4	††18.5	21.5	14
Jackson, Miss.	13	4	17	20	14.5
Natchez, Miss.	12.5	4	16.5	19.5	14
Vicksburg, Miss.	12.5	4	16.5	19.5	14
Birmingham, Ala.	14	4	18	21	15.5
Mobile, Ala.	13	4	17	20	15
Montgomery, Ala.	15	4	19	22	*16.5
Atlanta, Ga.	†14	3½	18	21	15
Augusta, Ga.	†15	3½	19	22	16
Macon, Ga.	†15	3½	19	22	16
Savannah, Ga.	†12	3½	16	18	14
Jacksonville, Fla.°	13	5	18	21	14
Miami, Fla.°	15	5	20	23	15.5
Tampa, Fla.°	12	5	17	20	14
Pensacola°	**14	5	**19	22	15

*Local privilege tax of 1 cent on gasoline and ½ cent on kerosene at Montgomery included.

†Georgia has ½ cent per gal. inspection fee on gasoline which is deducted as well as the state gasoline road tax of 3½ cents, to get the actual net tank wagon market to dealer.

°Florida gasoline prices include ½c inspection fee.

**Both tank wagon prices include 1c city tax at Pensacola, which went into effect Oct. 15, 1926.

††Both tank wagon prices at Gulfport include Harrison county privilege tax of 2c.

S. O. INDIANA

	Gasoline T.W.	Gasoline Tax	Gasoline Total T.W.	Gasoline Total S.S.	Oil T.W.
Chicago, Ill.	14	0	14	16	12
Decatur, Ill.	14.2	0	14.2	16.2	12.1
E. St. Louis, Ill.	13.1	0	13.1	15.35	11.2
Joliet, Ill.	14.4	0	14.4	16.4	12.3
Peoria, Ill.	14.2	0	14.2	16.2	12.1
Quincy, Ill.	14.2	0	14.2	16.2	10.9
Indianapolis, Ind.	14.2	3	17.2	19.2	13.2
Evansville, Ind.	14	3	17	19	13
South Bend, Ind.	14.4	3	17.4	19.4	13.4
Detroit, Mich.	14.8	2	16.8	18.8	13.7
Grand Rapids, Mich.	14.7	2	16.7	18.7	13.6
Saginaw, Mich.	14.9	2	16.9	18.9	13.8
Green Bay, Wis.	14.6	2	16.6	18.6	12.4
Madison, Wis.	14.3	2	16.3	18.3	12.1
Milwaukee, Wis.	14.1	2	16.1	18.1	11.9
La Crosse, Wis.	15.2	2	17.2	19.2	13
Minneapolis, Minn.	12	2	14	16	12.9
Duluth, Minn.	13.5	2	15.5	17.5	12.9
Mankato, Minn.	15.1	2	17.1	19.1	12.7
Des Moines, Iowa	14	3	17	19	12.3
Davenport, Iowa	14.5	3	17.5	19.5	12.3
Sioux City, Iowa	14.1	3	17.1	19.1	11.9
Mason City, Ia.	14.5	3	17.5	19.5	12.3
St. Louis, Mo.	*13.6	2	15.6	17.9	11.3
Kansas City, Mo.	†12.9	2	14.9	16.9	10.6
St. Joseph, Mo.	††14.5	2	16.5	18.5	11.2
Fargo, N. D.	15	2	17	19	14.9
Grand Forks, N. D.	17.2	2	19.2	21.2	15.2
Minot, N. D.	16.9	2	18.9	20.9	14.9
Pierre, S. D.	15.5	4	19.5	21.5	13.9
Huron, S. D.	12.5	4	16.5	18.5	13.9
Wichita, Kans.	12.8	2	14.8	16.8	10.8
Bartlesville, Okla.	12.8	3	15.8	17.8	10.8

S. O. Indiana Q. D. A. schedule on tank wagon deliveries of gasoline, effective March 3 thru territory, except Wisconsin effective March 4: 50 gals. and over on delivery, 1c discount; 6,000 gals. and over per month, 1½c; 10,000 gals. and over per month, 2c; 15,000 gals. and over per month, 3c, except latter discount does not apply in Chicago.

Service station discounts: 200 gals. or more per month, and 2400 gals. or more per year, 2c per gal.

March 1, 1c discount on kerosene in 50 gal. dumps thru territory.

*Includes city tax of ½c.

†Includes city tax of 1c.

S. O. NEBRASKA

Omaha, Neb.	14.25	2	16.25	16.25	12.25
McCook	15.75	2	17.75	19.75	13.75
Norfolk	14.75	2	16.75	18.75	12.75
North Platte	15.75	2	17.75	19.75	13.50
Scottsbluff	15.25	2	17.25	19.25	13.00

CONTINENTAL OIL

Denver, Colo.	15	3	18	20	14.5
Pueblo, Colo.	15	3	18	20	14.5
Grand Junction, Colo.	18.5	3	21.5	23.5	18
Casper, Wyo.	15	3	18	20	13
Cheyenne, Wyo.	16	3	19	21	14.5
Butte, Mont.	19	3	22	22	19
Helena, Mont.	19.5	3	22.5	24.5	19
Salt Lake City, Utah.	17.5	3½	21	23	17
Boise, Ida.	19.5	4	23.5	25.5	19
Twin Falls, Ida.	19.5	4	23.5	25.5	19
Albuquerque, N. M.	16	5	21	24	17

S. O. CALIFORNIA

Phoenix, Ariz.	19	3	22	26	21.5
Los Angeles, Cal.	13.5	2	15.5	19.5	15.5
Fresno, Cal.	14	2	16	19	16.5
San Francisco, Cal.	14	2	16	20	15.5
Reno, Nev.	18	4	22	26	19
Portland, Ore.	14.5	3	17.5	21.5	16.5
Seattle, Wash.	14.5	2	16.5	20.5	16.5
Spokane, Wash.	18.5	2	20.5	24.5	20.5
Tacoma, Wash.	14.5	2	16.5	20.5	16.5

S. O. LOUISIANA

Little Rock, Ark.	13	5	18	21	12
Alexandria, La.	13	2	15	18	†14
Baton Rouge, La.	12	2	14	17	†12.5
Lake Charles, La.	13.5	2	15.5	18.5	†14
New Orleans, La.	*13.5	2	*15.5	*18.5	*14
Shreveport, La.	13.5	2	15.5	18.5	†13
Lafayette, La.	13	2	15	18	†13.5
Bristol, Tenn.	16	3	19	22	14
Chattanooga, Tenn.	16.5	3	19.5	22.5	15
Knoxville, Tenn.	16.5	3	19.5	22.5	15
Nashville, Tenn.	15	3	18	21	15
Memphis, Tenn.	12	3	15	18	14

*New Orleans gasoline prices include 1c parish tax in addition to 2c state tax, and kerosene prices include 1c state tax and 1c parish tax.

†Kerosene price in Louisiana include 1c state tax.

S. O. OHIO

	Gasoline T.W.	Gasoline Tax	Gasoline Total T.W.	Gasoline Total S.S.	Oil T.W.
All Ohio points	16	3	19	21	15

MAGNOLIA PETROLEUM

Muskogee, Okla.	11	3	14	17	9
Oklahoma City	11	3	14	17	9
Tulsa, Okla.	11	3	14	17	9
Fort Smith, Ark.	13	5	18	21	12
Little Rock, Ark.	13	5	18	21	12
Texarkana, Ark.	†16	5	†*21	†*21	12
Dallas, Tex.	†15	3	†18	†18	11
Fort Worth, Tex.	†15	3	†18	†18	10
Houston, Tex.	††16	3	††19	††19	15
San Antonio, Tex.	†15	3	†18	†18	11
El Paso, Tex.	**16	3	**19	**19	16

*Within city of Texarkana the state tax on gasoline is 3c per gal. conforming with the Texas state tax. In Texarkana district outside of the city the 5c Arkansas tax applies.

†3c per gal. discount to dealers.

**2c per gal. discount to dealers at El Paso, Feb. 28.

††4c per gal. discount to dealers at Houston, March 16, 1927.

V. M. & P. NAPHTHA

(Changes ordinarily occur coincident with gasoline price changes)

	Oleum Spirits	V.M. & P. Naphtha	Cleaner Naphtha
Chicago	16	18	18
Detroit	17.7	19.7	19.7
Kansas City	16.2	†18.2	†18.2
Milwaukee	16.7	*20.7	*20.7
Minneapolis	*20	*22	*22
St. Louis	15.9	17.9	17.9
New York	..	19	

*Includes 2c state tax.

†Includes 1c city tax.

CANADA

(Per Imperial Gallon, which is 1.2 American Gallons)

ONTARIO

	Gasoline T.W.	Gasoline Tax	Gasoline Total T.W.	Gasoline Total S.S.	Oil T.W.
Toronto	19.5	3	22.5	26	21
Ottawa	19.5	3	22.5	26	21
Cochrane	24.5	3	27.5	36	26
Ft. William	22.5	3	25.5	29	23.5

MANITOBA

Winnipeg	24.5	3	27.5	31	23

SASKATCHEWAN

Regina	27.5	0	27.5	32	26.5

ALBERTA

Edmonton	26.5	3	29.5	33	25.5
Calgary	24.5	3	27.5	31	23.5

BRITISH COLUMBIA

Vancouver	20	3	23	27	21

QUEBEC

Montreal	20.5	3	23.5	27	21
Quebec City	22.5	3	25.5	29	23
Three Rivers	22.5	3	25.5	29	23

NEW BRUNSWICK

St. John	24.5	3	27.5	32	24
Moncton	24.5	3	27.5	32	24

NOVA SCOTIA

Halifax	24.5	3	27.5	32	24
Sydney	26.5	3	29.5	34	26

PRINCE EDWARD ISLAND

Charlottetown	24.5	3	27.5	31	24

Note: In districts surrounding these points 1c additional is added to city price.

More Export Gasoline Buying Expected; Bunker Oil Cheaper at Gulf

NEW YORK, July 11.

INQUIRIES last Monday indicated good sized export purchases were likely but deals fell through because of the condition of the bulk market. Gasoline stocks abroad are small and it is generally believed Continental buyers have been about to buy heavily for some time but have been postponing purchases until they believe prices will go no lower.

One refiner had inquiries for two mixed cargoes of gasoline and kerosene for August shipment to France. Kerosene was duller and bunker oil was cheaper at the Gulf. Paraffin waxes were steadier. Lubricating oils were in better demand. Diesel and gas oils marked time.

Export Gasoline—New York

U. S. Motor gasoline was freely offered at 8.50 to 8.75 cents a gallon. There were no bulk inquiries in the New York market. Stocks of gasoline here are heavy because of large arrivals from the Pacific coast.

Cased gasoline demand improved and a leading refiner sold 20,000 cases of U. S. Motor and 64-66 gravity 375 e. p. gasoline for August shipment to the Near East. An Independent refiner reported sale of 30,000 cases of U. S. Motor and 64-66 gravity 375 e. p. gasoline for shipment to the West Coast of Africa. U. S. Motor gasoline in cases was 24.40 cents a gallon.

Export Gasoline—Gulf Ports

Foreign buyers showed little interest, refiners are still confident there will be a turn for the better shortly. The heavy European consuming season is at hand and in view of the small stocks abroad large Continental distributors will be forced to buy shortly, refiners believe.

U. S. Motor gasoline was quoted at 7.375 to 7.50 cents a gallon for export. For domestic account 7 cents in cargoes could have been done. One refiner said that it was unlikely that export buyers could get such a low price. For 60-62 gravity 400 e. p. the price was 7.75 cents a gallon while 61-63 gravity 390 e. p. was 8 cents and 64-66 gravity 375 e. p. from 8.375 to 8.50 cents a gallon.

An Independent refiner sold 15,000 cases of U. S. Motor and 64-66 gravity gasoline for July shipment to Australasia. It was said this business was booked at $1.65 and $1.85 a case although these prices could not be confirmed. Most refiners were asking $1.70 and $1.90 a case in cargo lots.

Export Kerosene—New York

Featuring the bulk market at New York was the reduction of 0.25 cent a gallon in bulk prices. For 41-43 water white the price is now 6.50 cents a gallon and 43-45 water white 6.75 cents. Export business was almost entirely confined to cased goods. No bulk movements were disclosed. Stocks are large.

A leading Independent refiner reported sale of 20,000 cases of prime and water white kerosene for August shipment to South America but prices were not divulged. A Chinese buyer was inquiring for 40,000 cases of prime and water white kerosene but this did not materialize.

Export Kerosene—Gulf Ports

Export buyers have been keeping in closer touch with bulk kerosene prices and refiners look for a better demand from abroad before the end of July, but no bulk cargo sales were in sight. Water white 41-43 gravity was offered at 5 cents and 44 water white at 6 cents.

Cased kerosene was sluggish. A Chinese buyer purchased 20,000 cases of prime and water for August shipment but most of the other cased kerosene business was confined to 1,500 to 2,000-case lots for prompt shipment at $1.45 for 41-43 water white and $1.55 for 44 water white, in cargo lots.

Waxes—New York

The wax situation showed improvement and export buyers showed indications of resuming purchases on a fair sized scale soon. While some local short interests are still bearish those long of the market insist that conditions are better than they have been in some time. European candle manufacturers are purchasing on a slightly large scale but in many cases are still looking for lower prices. Domestic demand was better. Several export sales of 50-ton lots were reported.

Waxes—Gulf Ports

Gulf refiners are more confident of the wax market. With the Chinese situation easing up a little a much better demand is expected from China soon and the outlook is brighter than for several weeks. The Catholic countries are taking their usual summer quantities of wax. Domestic buying has been larger.

Prices reflected improved conditions. On Monday 124-126 A. m. p. white crude scale and white 124-126 semi-refined were quoted at 2.75 cents a pound. Yellow crude scale 124-126 A. m. p. was held at 2.625 cents. The fully refined grades were quoted as follows: 123-125 and 125-127 3.75 cents; 128-130 5.125 cents and 135-137 5.50 cents.

Gas Oil—New York

There was an inquiry from Scandinavia for 30,000 barrels of dark gas oil for August shipment. At New York Harbor refineries 36-40 was 5.50 cents a gallon and 28-34 5.25 cents. Domestic consumers have been buying hand-to-mouth.

Gas Oil—Gulf Ports

Gulf refiners reported a keener export interest in gas oil and it was rumored that 35,000 barrels of 32 plus dark gas oil was sold for August shipment to the Continent. Details were not divulged. This grade of oil was quoted at 4 cents a gallon bulk, refineries. For 26-28 red translucent gas oil the price was 4.25 cents a gallon. Domestic demand was spasmodic and light.

Lubricating Oils—New York

Demand for Pennsylvania lubricating oils further improved. Export buying has been spasmodic but French buyers have been inquiring for cylinder stocks and it was reported several moderate sized sales were pending. Pennsylvania 600 s.r. unfiltered cylinder oil in barrels, New York, is still held at 16.50 cents a gallon. Red engine oils are in good demand.

Lubricating Oils—Gulf Ports

Texas lubes were quiet but steady. There was an unconfirmed report that a leading Independent refiner had sold 30,000 barrels of assorted lubes for August shipment to France. Domestic demand was slightly better than in the preceding week but still below expectations.

Petrolatums

Buyers of snow white petrolatum have been operating on a slightly larger scale and prices were fairly well maintained. Demand, however, was mainly for domestic account. Lily white was dull but steady. Medicinal oils were easier and quiet.

Complete Export Markets

(Export markets for whole year given in OIL PRICE HANDBOOK. Each volume carries refinery, tank wagon, crude and export markets—complete for years 1924-1925-1926)

New York Export Market

	July 11	July 5
GASOLINE		
U. S. Motor f. o. b. New York Harbor	8.50 – 8.75	8.50 – 8.75
U. S. Motor cases	24.40	24.40
KEROSENE		
43-45 150 W. W. Bulk Ref.	6.75	7.00
41-43 Prime White Bulk Ref.	6.50	6.75
43-45 150 W. W. Cases	17.15	17.15
42-44 110 S. W. Cases	16.15	16.15
GAS OIL		
36-40 Bulk Refinery	5.50	5.50
28-34 Bulk Refinery	5.25	5.25
MEXICAN BUNKER OIL		
Grade C. f. o. b. ref. Bulk	$1.65	$1.65
Diesel Oil f. o. b. ref. Bulk	$2.20	$2.20
LUBRICATING OILS		

The following are cooperage basis f. o. b. New York, products being manufactured by inland refineries.

CYLINDER OILS (per Gallon in Barrels)		
1 inch Immersion Test; All Penna. Products		
Bright Stock dark	41.00	41.00
Filtered D 600	35.00	35.00
Filtered E 600-Warren	27.00	27.00
Unfiltered 600 s. r.	16.50	16.50
Unfiltered 650 s. r.	21.00	21.00
600 Flash s. r.	23.00	23.00
630 Flash	35.00	35.00
RED ENGINE OILS (Per Gallon in Barrels) (Viscosity at 100°)		
300 Vis. No. 6½ color	22.00	22.00
250 Vis. No. 6 color	21.50	21.50
200 Vis. No. 6 color	20.00	20.00
PALE ENGINE OILS (Per Gallon in Barrels) (Viscosity at 100°)		
230 Vis. No. 3¾ color	26.00	26.00
180 Vis. No. 3¼ color	21.50	21.50
100 Vis. No. 2¼ color	16.75	16.75
MOTOR OILS (Per Gallon in Barrels) (Viscosity at 100°)		
600 No. 7½ color	35.25	35.25
500 No. 7 color	33.25	33.25
400 No. 6½ color	33.00	33.00
300 No. 6 color	29.00	29.00
200 No. 3¾ color	23.50	23.50

	July 11	July 5
MEDICINAL OILS (Includes Price of Drums) (Penna Stocks)		
Domestic 875-.885 s. g.	.80	.80
Domestic 865-.870 s. g.	.70	.70
Russian 885-.890 s. g. 325-330 vis.	.80	.80
WAXES (Penna Stocks) (In Cents per Pound, F. A. S. Carload Lots)		
WHITE CRUDE SCALE (Shipped in Bbls.)		
122-124 A. m. p.	3.00	2.875
124-126 A. m. p.	3.00	3.00
FULLY REFINED (Shipped in Burlap Bags)		
123-125 A. m. p. Philadelphia	4.00	4.00
125-127 A. m. p.	4.00	4.00
128-130 A. m. p.	4.125	4.125
130-132 A. m. p.	4.375	4.375
133-135 A. m. p.	5.750	5.625
135-137 A. m. p.	6.125	5.875
YELLOW CRUDE SCALE		
124-126 A. m. p.	2.750	2.875
PETROLATUMS (Penna Stocks) Per Pound		
Dark Green	1.875	1.875
Veterinary	3.00	3.00
Light Amber	3.625	3.625
Dark Amber	3.250	3.250
Cream	5.75	5.75
Lily White	7.25	7.25
Snow White	8.125	8.125

Gulf Export Market

	July 11	July 5
GASOLINE F. O. B. Gulf Oil Terminals, Texas and Louisiana (Shipments of 20,000 Bbls. and over)		
U. S. Motor Bulk	7.375–7.50	7.00–7.50
60-62 400 e. p. Bulk	7.75	7.75
61-63 390 e. p. Bulk	8.00	8.00
64-66 375 e. p. Bulk	8.50	8.50
U. S. Motor, Cases (cargo lots)	$1.65– 1.70	$1.70
64-66 Cases (cargo lots)	$1.85– 1.90	$1.90
KEROSENE		
Water White, 43-45 Bulk	6.00	6.00 – 6.25
Prime White, 41-43 Bulk	5.00	5.00 – 5.25
Water White, cases (cargo lots)	$1.55	$1.55
Prime White, cases (cargo lots)	$1.45	$1.45
DOMESTIC GAS AND BUNKER OIL		
26-28, gravity, Bulk*	4.125	4.125
32 plus, bulk, Dark	4.00	4.00
Grade C, Bunker oil	$1.40	$1.45
Cargoes	$1.33–1.35	$1.30 – 1.35

*Translucent through neck of a 4 oz. bottle.

MEXICAN CRUDE AND BUNKER OILS, F. O. B. Steamer Tampico		
Heavy, Panuco crude Taxes to be added	$1.12	$1.12
Grade C, Bunker oil, F. O. B. Tampico, For Bunkering Purposes, taxes paid	$1.50	$1.50
SOUTH TEXAS (Viscosity at 100° F; cold test 0) (Tanker, F. O. B. Houston)		
LUBRICATING OILS	**July 11**	**July 5**
100 Vis. No. 2 Unfiltered Pale	6.00	6.00
150 Vis. No. 2½ Unfiltered Pale	8.50	8.50
200 Vis. No. 3 Unfiltered Pale	9.00	9.00
300 Vis. No. 3 Unfiltered Pale	10.00	10.00
500 Vis. No. 3½ Unfiltered Pale	12.00	12.50
200 Vis. No. 5½ Red Oil	7.50	8.00
300 Vis. No. 5½ Red Oil	8.50	9.00
500 Vis. No. 6 Red Oil	10.50	10.50

Pacific Export Market

(Quotations are at seaboard, Los Angeles, in Cargo lots)

	July 11	July 5
Gasoline, U. S. Motor—53°-55°	6.00 – 7.00	6.00 – 7.00
Gasoline, U. S. Motor—blends and special cuts	7.00 – 8.00	7.00 – 8.00
Gas Oil, 30°-34° in bbls.	$ .95 – 1.05	$1.00 – 1.05
Diesel Oil, 27°—plus in bbls.	$ .95 – 1.05	$ .95 – 1.05
Bunker Oil, 14°-18° in bbls.	$ .85 – 1.00	$ .85 – 1.00
Fuel Oil, 14°-18° in bbls.	$ .70 – .75	$ .68 – .75
Kerosene, W. W. 38°-40°, 125-150 flash (Gals.)	4.50 – 5.50	4.50 – 5.50
Cased Goods		
Gasoline, U. S. Motor	$2.00 – 2.15	$2.00 – 2.15
Kerosene, W. W. 38°-40°, 125-150 flash	$1.45 – 1.50	$1.45 – 1.50

N. Y. Domestic Market

The following light oil, gas and fuel prices are F. O. B. New York refineries being products made from Domestic (including California) and Mexican Crudes

	July 11	July 5
GASOLINE		
U. S. Motor tank cars, f.o.b. N. Y. refinery	8.50 – 8.75	8.50 – 9.00
U. S. Motor, tank cars, delivered Greater N. Y.	9.50 – 9.75	9.50 –10.00
Philadelphia, U. S. Motor, tank cars f. o. b. Philadelphia refinery	8.50 – 8.75	8.25 – 9.00
Philadelphia U. S. Motor, tank cars delivered nearby trade	9.50 – 9.75	9.25 –10.00
KEROSENE		
43-45 150 W. W. Tank Cars delivered greater N. Y.	7.75	8.00
41-43, Bulk Ref. Prime	6.50	6.75– 7.00
FUEL OILS		
Grade C Bunker f. o. b. N. Y. R	$1.65	$1.65
Diesel Oil f. o. b. Refinery	$2.20	$2.20
Gas Oil, 36-40, Bulk Refinery	5.50	5.50
Gas Oil, 28-34, Bulk Refinery	5.25	5.25
Furnace Oil, 38-42, Bulk Refinery	6.50	6.50
Furnace Oil from Tank Wagons	10.00	10.00

Bunker Oil—New York

Demand for bunker C oil for export was less active although there were more inquiries. Continental buyers are more interested in this oil. Grade C was offered at $1.65 a barrel, refinery, and 1.715 a barrel f. a. s. New York Harbor. Diesel oil was softer at $2.20 a barrel, refinery. The contract movement in both oils was large.

Bunker Oil—Gulf Ports

Export demand for Gulf Bunker oil lagged and no cargo sales were disclosed. At New Orleans for bunkering grade C oil was available at $1.40 a barrel compared with $1.45 a barrel in the preceding week. In cargo lots quotations ranged from $1.33 to $1.35 a barrel f. o. b. New Orleans.

At Tampico oil for bunkering was $1.50 a barrel including taxes but stocks at that port were small and no cargo offerings were made. Heavy Panuco crude oil in cargoes was offered at $1.12 a barrel f. o. b. Tampico, taxes to be added.

LOUISVILLE, Ky.—Roberts Bros. Oil Co. opened a brick and concrete service station here on May 7. It opened two other service stations in 1926. The company began business in 1908 and was incorporated in 1922 with these officers: H. P. Roberts, president; H. C. Roberts, secretary, treasurer and general manager; G. H. Wilson, vice president. The company handles Aero anti-knock gasoline, RB and Oak paraffin base motor oils.

Crude Oil Prices, as Posted by Major

(Crude prices for years 1924-1925-1926 in

EASTERN FIELDS

(Posted by Joseph Seep Purchasing Agency)

Penna. Grade Oil in New York Transit Lines (Alleghany, N. Y. District)	$2.90
Bradford District Oil in National Transit Lines (Bradford District)	2.90
Penna. Grade Oil in National Transit Lines (Other Pennsylvania)	2.80
Penna. Grade Oil in Southwest Penna. Pipe Lines (Other Pennsylvania)	2.80
Penna. Grade Oil in Eureka Pipe Lines (West Virginia)	2.75
Penna. Grade Oil in Buckeye Pipe Lines (Macksburg, O. district)	2.60
Keister Grade in National Transit Lines (Butler Co.)	1.10
Cabell Grade in Eureka Pipe Lines (West Virginia)	1.40
Corning Grade in Buckeye Pipe Lines (Ohio)	1.45
Corning, O. heavy grade	1.35
*Somerset Oil in Cumberland Pipe Lines (Kentucky)	1.50
Ragland Grade in Cumberland Pipe Lines (Kentucky)	.95

*Somerset oil run prior to Oct. 1922, I, takes price of 6 cents lower than above quotations.

(Posted by Stoll Oil Refining Co.)

Oil City, Ky., oil in Stoll lines.....$1.50

CENTRAL STATES FIELDS

Posted by Ohio Oil Co.

Effective March 14, 1927

Wooster	$1.77	Plymouth	$1.33
Lima	1.71	West. Kentucky	1.33
Waterloo	1.35	*Canadian Petro.	2.11
Indiana	1.48	*Oil Springs	2.18
Princeton	1.60	*Posted by Imperial Oil Ltd.	
Illinois	1.60		

OKLAHOMA, KANSAS And NORTH TEXAS

Prices of Prairie Oil & Gas Co.

(In Oklahoma, Kansas, North and East Central Texas)

Effective March 12, 1927

28-28.9	$1.12	35-35.9	$1.26
29-29.9	1.14	36-36.9	1.28
30-30.9	1.16	37-37.9	1.30
31-31.9	1.18	38-38.9	1.32
32-32.9	1.20	39-39.9	1.34
33-33.9	1.22	40-40.9	1.36
34-34.9	1.24	41-41.9	1.38
42-42.9	$1.40	48-48.9	$1.52
43-43.9	1.42	49-49.9	1.54
44-44.9	1.44	50-50.9	1.56
45-45.9	1.46	51-51.9	1.58
46-46.9	1.48	52 and above	1.60
47-47.9	1.50		

Above schedule met on March 12, by Gulf, Mid-Continent Pet. Corp., and Empire; by Carter, Humble and the Texas Co. on March 14.

Humble Oil & Refining Co. Prices

(Ranger, North Texas, Mexia, Powell, Richland, Wortham, Lytton Springs, Currie, Moran and Nocona crudes all in Texas.)

March 14, same schedule as Prairie in above fields except that Humble is paying 2c less for each degree of gravity on oil below 28°.

Mirando, Tex.....$1.00

Magnolia Petroleum Co.

(In Oklahoma, Kansas and North and East Central Texas)

Effective May 5

Below 33	$1.05	43-43.9	$1.27
33-33.9	1.07	44-44.9	1.29
34-34.9	1.09	45-45.9	1.31
35-35.9	1.11	46-46.9	1.33
36-36.9	1.13	47-47.9	1.35
37-37.9	1.15	48-48.9	1.37
38-38.9	1.17	49-49.9	1.39
39-39.9	1.19	50-50.9	1.41
40-40.9	1.21	51-51.9	1.43
41-41.9	1.23	52 and above	1.45
42-42.9	1.25		

Corsicana heavy.....$1.00

Carter Oil Co.

(Oklahoma and Kansas)

March 14, same schedule as Prairie.

PANHANDLE, TEXAS

Humble Oil & Refining Co.

Effective March 14

Hutchinson, and Carson Counties.....$0.95

Gray and Wheeler Counties:

28-28.9	$ .80	37-37.9	$ .98
29-29.9	.82	38-38.9	1.00
30-30.9	.84	39-39.9	1.02
31-31.9	.86	40-40.9	1.04
32-32.9	.88	41-41.9	1.06
33-33.9	.90	42-42.9	1.08
34-34.9	.92	43-43.9	1.10
35-35.9	.94	44 and above	1.12
36-36.9	.96		

WEST TEXAS

(Crane, Upton and Crockett Counties)

Humble Oil & Refining Co.

Effective March 14

Below 26	$ .70	31-31.9	$ .82
26-26.9	.72	32-32.9	.84
27-27.9	.74	33-33.9	.86
28-28.9	.76	34-34.9	.88
29-29.9	.78	35-35.9	.90
30-30.9	.80	36 and above	.92

NORTH LOUISIANA — ARKANSAS FIELDS

Prices of Standard Oil Co. of Louisiana Caddo, Homer, Haynesville, Bull Bayou, El Dorado, Crichton and De Soto

Effective March 14, 1927

Below 28	$1.10	40-40.9	$1.36
28-28.9	1.12	41-41.9	1.38
29-29.9	1.14	42-42.9	1.40
30-30.9	1.16	43-43.9	1.42
31-31.9	1.18	44-44.9	1.44
32-32.9	1.20	45-45.9	1.46
33-33.9	1.22	46-46.9	1.48
34-34.9	1.24	47-47.9	1.50
35-35.9	1.26	48-48.9	1.52
36-36.9	1.28	49-49.9	1.54
37-37.9	1.30	50-50.9	1.56
38-38.9	1.32	51-51.9	1.58
39-39.9	1.34	52 and above	1.60

Smackover, below 24	*$1.00
do 24 and above	* 1.25
Bellevue	1.25
Cotton Valley	1.00
**Urania, La	1.00
†East El Dorado	1.00

**Posted by Louisiana Oil Refining Corp.

†Posted by Magnolia Petroleum Co

*Met on July 6 by Louisiana Oil, Atlantic Oil Producing, and Shreveport — El Dorado Pipe Line Co.

STEPHENS, ARKANSAS

Atlantic Oil Producing Co. and Louisiana Oil Refining Corp.

Below 28	$1.00	30-30.9	$1.06
28-28.9	1.02	31-31.9	1.08
29-29.9	1.04	32 and above	1.10

GULF COASTAL

Posted by Humble Oil & Refining Co.

Effective March 14

Grades A	$1.20	29-29.9	$1.25
Grades B:		30-30.9	1.27
Below 25	1.15	31-31.9	1.29
25-25.9	1.17	32-32.9	1.31
26-26.9	1.19	33-33.9	1.33
27-27.9	1.21	34-34.9	1.35
28-28.9	1.23	35 and above	1.37

Fields classified as A and B are Spindletop, Goose Creek, Hull, Liberty, Sour Lake, West Columbia, Orange, Boling and Pierce Junction. All other fields are Grades A only.

Navy Bidding Indicates Higher Fuel Prices in California

Staff Special

LOS ANGELES, July 9

JUDGING from bids submitted by California major oil companies to supply the Shipping Board with about 3,000 barrels of fuel oil on the West Coast for the year beginning Nov. 1, executives of these companies fully expect fuel oil prices to show much improvement between now and fall.

The lowest flat bid was 85 cents for the entire amount. Although the Pan American again underbid others, its bid was on the sliding scale, with 78½ cents as the low for requirements for the first four months only. The rest of the period Pan American's bid scaled upward to 85 cents as the top for the last four months.

Two companies submitted flat bids of 85 cents, another company asked 86 cents, and two major companies refused to cut under $1 a barrel.

These bids were opened Friday and today it is not known if they will be accepted or rejected, as they are higher than the existing contract. Present contract was placed on a bid of 64½ cents, also by the Pan American.

Small Independent refiners without deepwater loading facilities are continuing to sell fuel in tank cars at 65 cents to 90 cents a barrel, according to their storage conditions. Gas oil is being quoted for export at 95 cents to $1.05, with little moving. The same quotations hold for Diesel, with practically no difference between tank car lots and tanker lots on either.

Independents are selling their gasoline for tank car movement at 8 to 9½ cents, with most of it moving around 9 cents.

But in the face of this low price, the majors are holding at 12½ cents for gasoline for shipment in tank cars to points within the state, allowing this business, which is relatively small, to go to the Independents. The majors had held at 11½ cents until the last 1 cent advance in service station and tank wagon prices. It is possible to shave the 12½ cent price in some instances for shipments to points outside of the state. This wide difference is explained by the fact that virtually all the majors have their own distributing systems well scattered over the state, and in most of the adjoining states.

The gasoline situation in the greater Los Angeles district is without material change, with price cutting stations selling gasoline at 15 to 16½ cents, including tax. It has been estimated that approximately 25 per cent of the total gallonage in this territory is cut price gasoline, but which meets the city test, and which

(*Continued on Page* 119)

Purchasers, in All Fields (in Effect, July 11, 1927)

OIL PRICE HANDBOOK published annually)

GULF COASTAL
Prices of The Texas Co.
(Effective March 14)

Grades A	$1.20	*Grades B	$1.15
‡Grades B (light crude):			
35-35.9	$1.37	38-38.9	$1.43
36-36.9	1.39	39-39.9	1.45
37-37.9	1.41	40 and above	1.47

*Grades B include all heavy crudes which do not meet tests for Grades A or for Gulf Coast light crude.

‡The Texas Co.'s gravity and price schedule on oil below 35° is same as Humble's postings on Grades B.

ROCKY MOUNTAIN FIELDS
Prices of Ohio Oil Co. and Midwest Refining Co.
(Salt Creek prices effective March 12)

‡Salt Creek	29-29.9	$1.14
" "	30-30.9	1.16
" "	31-31.9	1.18
" "	32-32.9	1.20
" "	33-33.9	1.22
" "	34-34.9	1.24
" "	35-35.9	1.26
" "	36-36.9	1.28
" "	37 and above	1.30
Elk Basin		1.33
Grass Creek light		1.33
Big Muddy		$1.25
Lance Creek		1.33
Rock Creek		1.25
Mule Creek		1.30
Rex Lake		1.10
‡Osage		1.33
‡Cat Creek, Mont.		1.33
Sunburst, Mont.		1.35
‡Hogback, N. Mex.		1.38
Artesia, N. Mex.		1.00

‡Posted by Midwest Refining Co. Midwest also buys Grass Creek light and Elk Basin.

The Texas Co. buys Salt Creek and Big Muddy crude.

CALIFORNIA
Standard Oil Co. of California

Santa Maria and Ventura Posted by Union Oil Co.

Gravity	Signal Hill Seal Beach Huntington Beach	Inglewood Torrance	Whittier La Habra	Newhall, McKittrick, Kern River	Olinda-Brea Canon, Richfield	Athens-Rosecrans Dominguez	Montebello	Coyote Hills	Santa Fe Springs	Midway Sunset Buena Vista & Elk Hills	Lost Hills	Coalinga	Wheeler Ridge	Santa Maria	Ventura
14-14.9	$ .85	$ .85	$ .85	$ .75	$ .85	....	$ .85	$ .85	....	$ .75	$ .75	$ .75	$ .75	$ .85	$ .85
15-15.9	.85	.85	.85	.75	.85	....	.85	.85	....	.75	.75	.75	.75	.85	.85
16-16.9	.85	.85	.85	.75	.85	....	.85	.85	....	.75	.75	.75	.75	.85	.85
17-17.9	.85	.85	.85	.75	.85	....	.85	.85	....	.75	.75	.75	.75	.85	.85
18-18.9	.85	.85	.85	.75	.85	....	.85	.85	....	.75	.75	.75	.75	.85	.85
19-19.9	.85	.85	.85	.75	.85	....	.85	.85	....	.75	.75	.75	.75	.85	.85
20-20.9	.85	.85	.85	....	.85	....	.85	.85	....	.77	.77	.76	.78	.85	.85
21-21.9	.86	.86	.85	....	.86	....	.85	.86	....	.79	.79	.77	.81	.85	.85
22-22.9	.87	.87	.85	....	.87	....	.85	.87	....	.81	.81	.78	.85	.85	.85
23-23.9	.88	.88	....	....	.88	....	.85	.88	....	.83	.83	.79	.89	.85	.85
24-24.9	.89	.89	....	....	.89	$ .89	.85	.89	.85	$ .85	.85	.80	.93	.85	.85
25-25.9	.90	.90	....	....	.90	.90	.86	.90	.85	.87	.87	.81	.97	.86	.86
26-26.9	.92	.92	....	....	.92	.92	.87	.91	.85	.89	.89	.83	1.01	.87	.87
27-27.9	.94	.94	....	....	.94	.94	.88	.92	.85	.91	.91	.85	1.05	.88	.88
28-28.9	.96	.96	....	....	.96	.96	.89	.93	.86	.93	.93	.87	....	.89	.89
29-29.9	.98	....	....	....	.98	.98	.90	.94	.87	.96	.96	.89	....	.91	.91
30-30.9	1.00	....	....	....	1.00	1.00	.91	.95	.88	.99	.99	.91	....	.93	.93
31-31.9	1.03	....	....	....	....	1.03	....	....	.89	1.02	1.02	.93	....	....	.95
32-32.9	1.06	....	....	....	....	1.06	....	....	.91	1.05	1.05	.95	....	....	.97
33-33.9	....	....	....	....	....	1.09	....	....	.93	1.08	1.08	.97	....	....	.99
34-34.9	....	....	....	....	....	1.12	....	....	.95	....	1.11	.99	....	....	1.01
35-35.9	....	....	....	....	....	1.15	....	....	.97	....	....	1.01	....	....	1.03
36-36.9	....	....	....	....	....	1.18	....	....	.99	....	....	....	....	....	1.06
37-37.9	....	....	....	....	....	1.21	....	....	1.01	....	....	....	....	....	1.09
38-38.9	....	....	....	....	....	1.24	....	....	1.03	....	....	....	....	....	1.12
39-39.9	....	....	....	....	....	1.27	....	....	1.06	....	....	....	....	....	1.15
40-40.9	....	....	....	....	....	1.30	....	....	1.09	....	....	....	....	....	....
41-41.9	....	....	....	....	....	1.33	....	....	1.12	....	....	....	....	....	....
42-42.9	....	....	....	....	....	1.36	....	....	1.15	....	....	....	....	....	....

*Union Oil Co. also purchases Long Beach Crude and is maintaining the same gravity and price schedule in that field as the Standard maintains in Signal Hill and Huntington Beach fields. The Union also buys and pays the same prices as the Standard in the Rosecrans-Dominguez fields, on gravities ranging from 14 degrees to and including 24.9 degrees and in Santa Fe Springs, on gravities ranging from 20 to and including 23.9 degrees.

REFINERS' and COMPOUNDERS' SUPPLIES

Following are the average market prices for the week on materials used by refiners and compounders f. o. b. shipping point as effective this date.

Refiners' Supplies

	July 11	July 5
Soda Ash light 58% bags, cwt.	$1.325	–$1.325
Silicate of Soda 60 deg. drums, cwt.	$1.65	$1.65
Sal Soda wks.	$0.90–$1.10	$0.90–1.10
Caustic Soda 76% solid cwt.	$3.00	3.00
Chloride of Lime, cwt. works	$2.00	2.00
Sulphuric Acid 60 deg. tank cars f. o. b. shipping point, per ton	$10.50-11.00	10.50–11.00
Liquid Chlorine tank cars works, lb.	4	4

Compounders' Supplies (Open Market)

Vegetable Oils—		
Linseed carloads spot, lb.	10.6	10 9
July	10.6	10 9
Tanks spot	9.8	10.1
*Soya Bean Tanks, Coast, lb.	9.25	9.25
Castor Oil—		
No. 1 Carlots, Bbls.	13.00	13.50
No. 3 Carlots, Bbls.	12.50	13.00
Animal Oils—		
English Degras	5.25	5.25
Domestic Degras, bbls., carloads, lb.	4.50	4.50
Oleic Acid—		
Dist. Bbls., lb.	9.25	9.25
Saponified Bbls., lb.	9.50	9 50
Lard Oils—		
Prime		
Winter Strained 2 to 1½ ffa. 40-45c.t.lb.	14.75	13.75
Extra		
Winter Strained 2 to 4½ ffa. 40-45c.t.lb.	13.75	13.25
Extra, 4 to 5 ffa. 40-45c.t.lb.	13.50	12.75
Extra No. 1, 7 to 10 ffa. 40-59c.t.lb.	12.50	12.00
No. 1, 15 to 18 ffa. 40-45c.t.lb.	11.50	11.00
No. 2, 22 to 23 ffa. 40-45c.t.lb.	11.00	10.75
Prime Edible Tallow under 1½ ffa. 40-45c.t.N.Y., lb.	8.25	8.25
Tallow acidless, lb.	10.75	10.75
Lard Stearine, lb.	15.00	15.00
Oleo Stearine, lb.	9.75	9.75
Neatsfoot Oil—		
Pure, bbls.-lb.	12.75	12.75
Extra, bbls.-lb.	12.25	12.25
No. 1, bbls.-lb.	10.50	10.50
Cold pressed, lb.	17.75	17.75
Fish Oils—		
Menhaden Oil		
Light pressed, gal.	60	60
White, gal.	66	66
Yellow bleached, gal.	64	64
Whale, extra winter bleached, gal.	82	82
Naval Stores—		
Turpentine, N. Y., gal.	57½	52½
Turpentine†, gal.	51¼	46
Rosin, B. N. Y., bbl.	$ 9.75	$ 9.10
Rosin, F. N. Y., bbl.	$ 9.75	$ 9.15
Rosin, B†, bbl.	$ 8.15	$ 7.50
Rosin, F†, bbl.	$ 8.15	$ 7.50
Rosin Oil 1st run, gal.	57	57
Rosin Oil 2nd run, gal.	62	62
Pine Tar—		
Kiln Burnt, bbl.	$16.00	$16.00
Retort, bbl.	$16.00	$16.00

†Savannah, Ga., market.
*Nominal.

Alcohol—Denatured—		
Formula 5		
Bbls., gal.	51	51
Drums, gal.	44	44

Moderately Expanding Business Forecast for Next 6 Months

CLEVELAND, July 9

MODERATELY expanding business is predicted for the second half of 1927 by the National Bank of Commerce of New York. However, the bank forecasts, the second half year will not be one of easy profits because of the ever increasing competition. What the bank says may be applied to the oil markets. The bank's summarization of the business outlook follows in part:

"Business is in the midst of one of those moderate and orderly readjustments by which production and consumption have been kept closely in balance for the last five years. Activity is not so great as it was at this time in 1926, and the first half of 1927 has not equaled the high records which were being established last year. But this is a reason for confidence rather than pessimism, for it is by precisely this sort of orderly readjustment in previous years that stability has been so successfully maintained.

"As a matter of fact, the volume of business done has probably exceeded what was really anticipated at the beginning of the year. Particularly in view of such untoward events as the Mississippi floods, generally unseasonable weather and the bituminous coal strike, the persistently sustained flow of goods through production into consumers' hands reveals a thoroughly sound position. The present outlook is for a good and moderately expanding rate of business activity during the second half year.

"This middle-of-the-road sort of prosperity which is indicated for the balance of 1927 is not one of easy profits. On the contrary, even if the volume of business is at a high average level, when it is still far short of pressing on productive capacity, competition grows keener and keener as marginal producers struggle to maintain themselves by more active operations. That is the present condition, when even moderate recessions from record levels of activity intensify the competitive struggle.

"With profits narrow and hard to earn, there is some disposition to question whether the country is actually enjoying a period of prosperity. The word 'prosperity' ought not to be made synonymous with those short-lived and mainly speculative periods of frenzied business which have been not uncommon in our past history and which bring quickly in their wake depression and even financial collapse. A better standard may be found in the orderly functioning of our economic system. Full agreement on the details of any definition cannot be expected, but the following points outline certain fundamental conditions or measures precedent to prosperity:

"1. Full employment, to the extent that unemployment is confined to normal seasonal variations and to the fringe of semi-employables.

"2. Wages such as to enable the working population to maintain, and in some measure to advance, its standard of living.

"3. Accumulation of physical capital by the country at a rate great enough to provide for population increase and somewhat more.

"4. Business profits adequate to meet the currently prevailing standards of return on capital and to provide for the accumulation of reasonable reserves.

"About the first three of these measures there can be little question at this time. Employment is full, wages are good and the country is patently adding to its physical wealth at a rapid rate. But there will be some disagreement about the fourth, for numerous individual enterprises have been suffering losses and many others are hard put to it to make more than expenses, while in a few cases lines of industry find earnings precarious.

"That the reasonable activity of the first half of the year will continue in the second half seems well indicated by the position of the great producing industries. The steel industry has operated at a very good rate, and output for the first half of 1927 will fall only slightly below the record figure of a year ago. Current curtailment is a trifle more than of seasonal proportions, but even so the industry is continuing at a satisfactory rate, with a steady flow of small orders exercising a stabilizing influence. Buying by the heavy steel-consuming industries —the railroads, automobile makers, construction and oil industries—seems likely to be well sustained in the latter half of the year, though there is little reason to expect largely increased buying.

"The textile industry as a whole is now in the best position of several years, and the cotton branch especially has been enjoying active business. The sustained heavy volume of building contracts let in May indicates that construction for 1927, while it may fall somewhat short of that in 1926, will compare favorably with other years of high activity. The automotive industry, which has also fallen short of last year's high level, has at least equaled if it has not exceeded what seemed the reasonable expectations of six months ago.

"The crop outlook is mixed and is, in fact, somewhat less favorable than a month ago. Corn planting has been badly delayed by unfavorable weather, and the crop hazard from frost in the fall has been seriously increased. Corn prices advanced sharply as a result, and this has stimulated late planting, but the final out-turn will depend on favorable growing weather and a late autumn. The outlook for winter wheat has deteriorated somewhat in the past month; that of spring wheat has improved, with some net decrease from last year in the aggregate crop now in prospect. Except for a few areas of drouth and such losses as have been occasioned by the Mississippi floods, the present prospect of the cotton crop is very satisfactory. It seems clear there has been some reduction in acreage planted; but on the basis of current prospects, a short crop is not in view.

The effect of adverse weather to date has been to increase the agricultural hazard, but of course the final out-turn will be determined only later on. The prices of many agricultural products have advanced sharply in response to this increased uncertainty."

Barnsdall Plans to Have Only Voting Stock

NEW YORK, July 9.—Stockholders of Barnsdall Corp. will meet Aug. 4 to consider a proposal for the reclassification of its capital stock with the idea of eventually eliminating the Class B non-voting shares.

It had been intended to make all Barnsdall stock of one class but at a directors' meeting this week it was discovered there might be legal complications because of warrants for the purchase of Class B stock which are attached to the $15,000,000 15-year 6 per cent sinking fund debentures which were issued late in 1925.

Three million Class B shares are authorized, of which 1,000,000 shares are set aside for purchase by debenture holders at $30 a share. Only about 5 per cent of the authorized B stock has been issued.

It is planned not to reclassify the existing stock by increasing the number of Class A shares and reducing the number of unissued Class B shares as there would be sufficient authorized but unissued A stock to permit the corporation, upon the approval of the stockholders, to offer to exchange each share of outstanding Class B stock for a share of Class A stock, and at the same time giving all owners of stock purchase warrants the right to subscribe, in the first instance, for Class A stock in place of Class B stock, or if they have subscribed for Class B stock, to exchange such Class B stock, share for share, for Class A stock.

Transactions In Oil Shares on New York Stock Exchange

1926 High	1926 Low	1927 High	1927 Low	Listed Capital	Par Value	Stocks	Div. Rate	Last Paid	Transactions Week Ended July 9 Sales	First	High	Low	Last	Change
32⅜	24¼	37⅝	27⅝	(sh) 915,675	N.P.	Amerada Corp.	50cQ	Apr. 30, 27	4,600	30⅜	30⅜	29¾	30	— ¼
74	39¾	64⅞	35⅛	(sh) 209,180	N.P.	American Republics	.....	.....	13,600	56⅛	*64⅞	56	59⅞	+ 2⅞
59½	44¾	50¼	42	$ 56,000,000	$25	Associated Oil	‡50cQ	June 25, 27	.....	.....	.....	.....	.....	.....
128¾	97	125⅝	107	50,000,000	100	Atlantic Refining	$1Q	June 15, 27	10,200	111½	114¾	111	113	+ 1¾
120	115½	118	115½	20,000,000	100	do pfd.	$1¾Q	July 15, 27	.....	.....	.....	.....	.....	.....
33½	23½	35½	23⅛	25,000,000	25	Barnsdall Corp. A	62½cQ	July 15, 27	10,900	26¼	27	25⅜	25⅜	— 1¼
29½	22½	32½	22	3,840,275	25	do B	62½cQ	July 15, 27	400	25½	26	24¼	24¼	— 1¼
68⅜	29¾	32⅞	21½	49,505,175	25	California Petroleum	50cQ	June 1, 27	4,200	23	24	23	23⅝	+ ⅜
94¼	50	96¾	68½	24,242,500	100	General Asphalt	.....	.....	8,800	73	74¾	72¼	73	0
140½	94⅞	144⅞	108½	6,949,200	100	do pfd	$1¼Q	June 1, 27	300	114¾	114¾	113	113	+ 3
72	50¼	174½	60½	25,000,000	100	Houston Oil	.....	.....	148,400	159½	*174½	158	168	+10⅜
84	19⅝	32¾	17⅝	(sh) 500,000	N.P.	Independent Oil & Gas	25cQ	Apr. 18, 27	4,600	18¼	19⅝	18¼	19½	+ 1¼
13¾	7¼	11⅛	7⅛	$ 3,280,340	$10	Indian Refining	.....	Dec. 15, 20	1,100	8½	8½	8½	8½	+ ¾
12½	8	10⅞	7¼	4,550,110	10	do ctfs.	.....	.....	800	8	8	7½	7¾	0
104	90	112	102	2,296,400	100	do pfd.	.....	Dec. 15, 21	.....	.....	.....	.....	.....	.....
24½	19⅛	32½	20½	(sh) 3,988,044	N.P.	Lago Oil & Transport	75cQ	May 1, 27	9,600	26¾	29½	26¾	29	+ 2¼
19⅞	12	18⅜	11½	(sh) 1,135,662	N.P.	Louisiana Oil Refining	.....	.....	1,500	11¾	11¾	11½	11½	— ¼
98	93	97	90	$ 4,000,000	$100	do pfd.	$1¾Q	May 16, 27	10	90¾	90¾	90¾	90¾	— ½
28⅞	16½	22¾	13	(sh) 330,000	N.P.	Maracaibo Oil	.....	.....	100	13½	13½	13½	13½	0
63⅜	49¼	58½	31	(sh) 2,308,064	N.P.	Marland Oil Co.	.....	Mar. 31, 27	24,200	32⅜	33½	32	32¼	0
250	225	250	200	$ 45,942,800	$100	Mexican Petroleum	$3Q	Apr. 20, 27	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	12,000,000	100	do pfd.	$2Q	Apr. 20, 27	.....	.....	.....	.....	.....	.....
13¾	6	9¼	4½	(sh) 945,939	N.P.	Mexican Seaboard	.....	Nov. 15, 24	1,700	47⅛	51⅛	47⅛	51⅛	+ 1⅛
37	27½	39⅜	29	(sh) 1,357,800	N.P.	Mid-Continent Petroleum	75cQ	May 1, 27	4,400	30	30⅜	29¾	29⅞	— ⅛
104¼	90	105	97	$ 6,718,000	$100	do pfd.	$1¾Q	June 1, 27	100	101	101	101	101	0
2½	¾	3¾	1⅝	24,726,130	10	Middle States	.....	July 1, 23	12,100	3	3⅛	2⅞	2⅞	— ⅛
1⅝	½	2¾	1⅛	5,074,090	...	do ctfs	.....	.....	800	2	2⅛	1⅞	1⅞	— ⅛
2¼	1	1⅞	1	(sh) 3,500,000	N.P.	Pacific Oil	.....	.....	3,300	1¼	1⅝	1¼	1⅝	0
76½	56½	65⅞	53⅛	$ 48,307,400	$ 50	Pan American P. & T.	$1.50Q	Apr. 20, 27	1,600	53½	54⅜	†53⅛	53⅛	— ⅛
78⅜	56⅞	66⅜	53½	121,096,950	50	do B	$1.50Q	Apr. 20, 27	16,600	54	55⅜	53⅜	53⅜	— ⅛
46	30	37⅞	19	(sh) 400,000	N.P.	Pan American Western B.	.....	Jan. 30, 27	1,200	20½	20¾	20⅛	20⅜	— ⅛
62	4½	18⅞	8	(sh) 198,770	N.P.	Panhandle P. & R.	.....	.....	4,100	8½	8⅞	8	8	— ½
99⅜	51	83¾	64	$ 2,935,200	$100	do pfd.	.....	July 2, 23	.....	.....	.....	.....	.....	.....
57⅜	40	60¼	38¼	(sh) 2,406,796	N.P.	Phillips Petroleum	75cQ	July 1, 27	49,800	39½	40¼	38¾	39¼	— ½
1⅞	½	1⅛	½	$ 29,622,925	$ 25	Pierce Oil Corp.	.....	.....	1,700	⅞	⅞	⅞	⅞	— ⅛
27⅛	11⅜	24	13½	15,000,000	100	do pfd.	.....	Feb. 1, 22	200	21⅞	22	21⅞	22	— 1
7	2¼	5½	2½	(sh) 2,500,000	N.P.	Pierce Petroleum	.....	.....	18,400	4⅞	5	4½	4⅞	0
20¾	11	33⅞	16¾	$ 11,467,850	$50	Producers & Refiners	.....	Sept. 15, 23	6,900	25¼	26½	25	25⅜	+ ⅜
41¾	30¾	50	36⅞	2,845,350	50	do pfd.	.....	May 1, 25	.....	.....	.....	.....	.....	.....
31	25¼	33½	25⅝	75,929,250	25	Pure Oil Co.	‡37½cQ	June 1, 27	9,900	26	26¼	25⅞	25⅞	— ⅛
112¾	106	114	111⅜	13,000,000	100	do 8% pfd.	$2Q	July 1, 27	300	112⅜	112½	112⅜	112½	0
57⅜	47⅜	58	47¾	(sh) 628,559	13.40	Royal Dutch, N. Y. shares	$133¼	Jan. 28, 27	800	48¾	48⅞	48⅜	48¾	+ 1
40⅝	40½	47⅞	43⅝	(sh) 83,152	F2	Shell Transport & T	96.7c	Jan. 17, 27	100	45⅜	45¾	45¾	45¾	+ 1½
31	24	31¾	25	(sh) 10,000,000	N.P.	Shell Union Oil	35cQ	June 30, 27	6,900	26½	27½	26½	26⅞	+ ½
114	103	111	107½	$ 18,350,400	$100	do pfd.	$1½Q	May 16, 27	.....	.....	.....	.....	.....	.....
28⅝	15⅛	22⅜	14⅞	7,208,080	10	Simms Petroleum	.....	Apr. 1, 27	10,800	15⅝	16	†14⅞	15¼	— ½
24⅞	16¾	22⅜	16	(sh) 4,501,224	N.P.	Sinclair Consolidated	.....	May 31, 24	13,600	16¼	17	16¼	16⅜	+ ⅛
99½	90	103¼	97	$ 17,210,000	$100	do pfd.	$2Q	May 16, 27	200	98	98	98	98	— 1
37⅛	26⅜	37⅜	24⅛	27,398,500	25	Skelly Oil Co.	50cQ	June 15, 27	4,700	25⅞	27	25⅝	25⅜	— ¼
63⅜	52⅜	60¾	50⅜	(sh) 13,016,434	N.P.	S. O. California	‡62½cQ	June 15, 27	10,000	53	54	52⅞	53½	+ ⅝
46⅜	37⅜	41⅜	35⅛	$ 604,484,600	$25	S. O. New Jersey	‡25cQ	June 15, 27	13,200	36½	36¾	36⅜	36¾	0
33¼	32½	34⅛	29¾	421,498,275	25	S. O. New York	40cQ	June 15, 27	20,900	30	30½	30	30¼	+ ⅛
41⅜	30⅛	34⅞	30	(sh) 1,171,474	N.P.	Sun Oil	25cQ	June 15, 27	.....	.....	.....	.....	.....	.....
5¾	1	6½	3¾	(sh) 1,121,368	N.P.	Superior Oil Corp.	.....	Dec. 20, 20	5,500	4¼	4½	4¼	4¼	— ¼
57⅞	53⅛	58	45	$ 179,752,525	25	The Texas Corp.	75cQ	July 1, 27	10,900	47⅛	47⅜	46⅝	47	— ½
19½	12	18⅞	12	8,380,340	10	Texas Pacific Coal & Oil	.....	Mar. 31, 27	4,900	15	15½	14¾	14¾	— ¼
39¾	37	29½	22½	(sh) 2,157,991	N.P.	Tide Water Oil Co.	20cQ	June 30, 27	700	22½	22½	22	22	— ¼
103	87¼	89¾	87	$ 20,705,100	$100	do 5% pfd.	$1.25Q	May 16, 27	.....	.....	.....	.....	.....	.....
.....	.....	19⅛	15½	(sh) 4,791,410	N.P.	Tide Water Associated	30cQ	May 2, 27	2,600	16½	16⅝	16⅛	16¼	— ¼
.....	.....	90¾	88	$ 76,347,100	$100	do pfd. new	$1.50Q	July 1, 27	300	88	88¼	88	88	0
5¼	3	9¾	3¾	(sh) 3,742,029	N.P.	Transcontinental Oil	.....	.....	88,900	9	9¼	8⅝	8⅝	— ⅜
58¾	37⅛	56½	39⅝	$ 40,741,725	$ 25	Union Oil of California	50cQ	May 10, 27	4,500	41⅝	42¼	41⅛	42¼	— ¼
120⅜	84¼	115½	94	30,734,000	100	Union Tank Car Co.	$1¼Q	June 1, 27	100	113¼	113¼	113¼	113¼	+ ¼
.....	.....	28½	25½	(sh) 239,860	N.P.	Warner Quinlan	50cQ	July 2, 27	200	26	26	†25½	25½	— ⅜
29¾	25⅛	27½	22	(sh) 490,000	N.P.	White Eagle Oil & Refining	50cQ	Apr. 20, 27	1,100	22⅝	23	22⅝	23	+ ⅜

*New High †New Low xEx-Dividend ‡Also extras Total Sales 577,310

Cleveland Stock Market

July 8

	Par Value	Bid	Asked	Last Sale
Canfield Oil Co.	100	.....	.....	110
do pfd.	100	100	.....	100
Fred G. Clark Co.	10	.....	3½	3⅜
National Refining Co.	25	35	35½	35
do pfd.	100	128	.....	130
Paragon Refining Co.	25	8½	8⅞	8¾
do pfd.	100	.....	90	85

x Ex dividend.

Oil Dividends

	Amount	Stock of Record Payable	Stock of Record
Atlantic Ref. pfd. q.	$1.75	Aug. 1	July 15
Beacon Oil pfd. q.	$1.87½	Aug. 15	Aug. 1
Houston Oil pfd. s.a.	$3	.....	.....
Louisiana Oil Ref. pfd. q.	$1.62½	Aug. 15	Aug. 1
Salt Creek Prod. q.	75c	Aug. 1	July 15
Shell Transport	$1.45	July 22	July 14
Tide Water-Associated q.	15c	Aug. 1	July 12

PITTSBURGH STOCK EXCHANGE

1926 High	1926 Low	1927 High	1927 Low	Par Value	Stocks	Transactions Week Ended July 8 Sales	First	High	Low	Last	Ch'ge
8½	6⅜	.....	.....	N.P.	Andes Petroleum	.....	.....	.....	.....	.....	.....
8½	5¾	9⅜	6⅞	$ 10	Arkansas Nat. Gas.	20,210	8⅞	*9⅜	8⅞	9⅜	+ ½
90½	79¾	98⅝	84	100	Columbia Gas	15	94	94	94	94	+ 1¼
101¾	95	107	100	100	do pfd.	.....	.....	.....	.....	.....	.....
17	12½	15	9½	10	Devonian Oil	40	10½	10½	10½	10½	0
116½	112	116¾	115	100	Duquesne Lt. 7% pfd.	48	116	116	115½	116	0
10	5½	12½	6	N.P.	Houston Gulf Gas.	500	9½	9½	9	9	— ½
46	39	46¼	37¼	$ 25	Lone Star Gas	3149	43	43½	43	43½	+ ¼
47¾	33⅛	22¾	22¾	25	Ohio Fuel Corp.	.....	.....	.....	.....	.....	.....
47½	42	21⅝	21	....	do ctfs.	.....	.....	.....	.....	.....	.....
6¾	5	6	5	....	Ohio Oil & Gas	.....	.....	.....	.....	.....	.....
34	21	21	21	25	Oklahoma Nat. Gas.	.....	.....	.....	.....	.....	.....
21	19¼	23⅝	20¼	....	do ctfs.	280	22	22	22	22	—¾
5⅜	3⅛	3⅞	3	5	Pittsburgh Oil & Gas	50	3	3	†3	3	— ¼
10	7½	8	6	10	Salt Creek Cons.	.....	.....	.....	.....	.....	.....
27	8	26½	17	10	Tidal Osage	50	21½	22	21½	22	+ 1
45	40	43	41	N.P.	Waverly Oil Wks. "A"	.....	.....	.....	.....	.....	.....

*New high †New Low xEx-Dividend

PITTSBURGH CURB EXCHANGE

1926 High	1926 Low	1927 High	1927 Low	Par Value	Stocks	Transactions Week Ended July 8 Sales	First	High	Low	Last	Ch'ge
3⅜	2½	3½	2¾	$ 5	Columbia Synd.	.....	.....	.....	.....	.....	.....
20	.06	.18	.18	5	Duquesne Oil	.....	.....	.....	.....	.....	.....
22	22	....	....	10	Forest Oil	.....	.....	.....	.....	.....	.....
91½	85	94	88	25	Gulf Oil Corp.	.....	.....	.....	.....	.....	.....
79	79	105	93	100	Houston Gulf Gas pfd	.....	.....	.....	.....	.....	.....
12	7½	10¾	6¼	N.P.	Leonard Oil & Dev.	2,600	8	8	8	8	+ ⅛
1⅝	1⅜	....	....	N.P.	Mountain & Gulf	.....	.....	.....	.....	.....	.....
30¾	29	32	31¼	$ 25	Oklahoma Gas	.....	.....	.....	.....	.....	.....
....	....	1.20	1.00	....	Oklahoma Eastern	.....	.....	.....	.....	.....	.....
2	.15	2.70	.75	10	Omar Oil & Gas	3,400	1.15	1.15	1.10	1.15	— .10
....	....	2¼	1¾	....	Pittsburgh Oil Dev.	.....	.....	.....	.....	.....	.....
2	1¾	2¼	2¼	5	do pfd.	.....	.....	.....	.....	.....	.....
33½	20	31	23	10	Plymouth Oil	75	24	24	24	24	0
7	3	6	5½	5	States Oil	.....	.....	.....	.....	.....	.....
3½	2	3⅛	2	1	Texon Oil & Land	.....	.....	.....	.....	.....	.....
25¾	8	23¼	18	10	TidalOsage(non-vtg).	.....	.....	.....	.....	.....	.....

Standard Oil Stock Traded in New York

1926 High	1926 Low	1927 High	1927 Low	Outstanding Capital	Par Value	Stocks	Div. Rate	Last Paid	Transactions Week Ended July 8 Sales	First	High	Low	Last	Ch'ge
21	16¾	21¾	18⅛	£ 4,000,000	£ 1	Anglo-American Oil	60¾c	May 31, 27	600	18½	18⅞	18⅛	18⅛	0
20¼	16½	20½	17⅝	.....	£ 1	do ctfs. non-voting	.....	.....	.....	.....	.....	.....	.....	.....
2¼	.75	1¼	.75	(sh) 500,000	N.P.	Atlantic Lobos	.....	.....	300	....	76	75	75	— 1
5	2⅞	4¼	2½	$ 10,000,000	$ 10	do pfd.	.....	.....	.....	.....	.....	.....	.....	.....
75	65	69	50	1,000,000	25	Borne Scrymser	‡$1S.A.	Apr. 15, 27	.....	.....	.....	.....	.....	.....
59½	42	59	45	10,000,000	50	Buckeye Pipe Line	$1Q	June 15, 27	600	57½	58	57	57¼	+ ¼
82½	65	115	76½	3,000,000	25	Chesebrough Mfg.	$1Q	June 30, 27	200	103	105	103	105	+ 2
25⅞	17½	22⅝	17	38,805,260	10	Continental Oil	25cQ	June 15, 27	3,800	17	17⅛	17	17	0
137	102	137	89	3,000,000	100	Cumberland Pipe Line	$2Q	June 15, 27	50	91	91	91	91	+ ½
63¾	43	58½	47	5,000,000	100	Eureka Pipe Line	$1Q	May 2, 27	100	56	56	55½	55½	0
32½	9⅛	13½	7½	16,000,000	100	Galena Signal Oil	.....	June 30, 25	200	8	8	8	8	0
94½	35	59¾	35	4,000,000	100	do new pfd.	.....	June 30, 26	100	36	40	36	40	+ 3
97½	40	60½	43½	2,000,000	100	do old pfd.	.....	June 30, 26	10	45	45	45	45	0
99⅝	52	62¾	54	73,117,577	25	Humble Oil & Refining	‡30cQ	July 1, 27	6,100	56⅞	58	56⅞	57¼	+ ¼
144½	125¼	150	123¾	20,000,000	100	Illinois Pipe Line	$6S.A.	June 15, 27	1,400	142½	148½	142½	147	0
39¾	32½	47	37¾	(sh) 6,491,952	N.P.	Imperial of Canada	‡25cQ	June 1, 27	2,500	42⅜	44¼	42⅜	44	+ 3⅜
70	54¼	72½	61	$ 5,000,000	$50	Indiana Pipe Line	$1Q.	May 14, 27	1,500	70¼	71½	70	70	— ½
35¼	28¾	34⅜	28¼	(sh) 7,118,138	N.P.	International Petroleum	25c	June 15, 27	4,200	28⅝	29½	28⅝	29⅛	+ ½
20¾	12½	17	13½	$ 6,362,500	$12½	National Transit Co.	25cQ	June 15, 27	900	15¼	15½	15⅛	15½	+ ⅜
51½	27⅜	37	31¼	5,000,000	100	New York Transit	.....	July 15, 26	.....	.....	.....	.....	.....	.....
80½	64	91	70	4,000,000	100	Northern Pipe Line	$3S.A.	July 1, 27	500	84½	86	84½	86	+ 1½
67⅜	55¾	64¼	52	60,000,000	25	Ohio Oil Co.	‡50cQ	June 15, 27	5,200	59¾	61	59¾	60¼	+ 1¼
24⅝	15	31	12	10,000,000	25	Penn Mex. Fuel	.....	May 21, 25	1,400	27½	28¼	27½	28¼	+ ¾
60¼	48	55½	45⅝	60,000,000	25	Prairie Oil & Gas	50cQ	May 31, 27	2,100	47⅝	48⅜	47⅝	48⅛	+ ½
137½	122¼	185	132	81,000,000	100	Prairie Pipe Line	$2.50Q	Apr. 30, 27	2,500	176	181	176	178	— 1¼
220	184½	201½	180	4,000,000	100	Solar Refining	$5S.A.	June 20. 27	30	180	180	180	180	0
7	21	27¼	15½	5,000,000	50	Southern Pipe Line	.....	Mar. 1, 26	300	17¾	17¾	17¾	17¾	— ¼
50	34½	41½	34½	20,000,000	25	South Penn Oil	50cQ	June 30, 27	200	35⅛	35¼	35	35	0
57	49	77	55½	3,500,000	100	South West Pa. Pipe Lines	$1Q	July 1, 27	50	67½	67½	67½	67½	— 0½
70½	60½	74¼	64¾	228,415,463	25	S. O. Indiana	‡62½cQ	June 15, 27	9,500	66⅝	67⅝	66⅝	67¼	+ ½
36½	16½	20⅞	15⅝	8,000,000	25	S. O. Kansas	.....	June 16, 24	.....	.....	.....	.....	.....	.....
134¾	108	122¼	111½	17,012,599	25	S. O. Kentucky	$1Q	June 30, 27	800	111⅞	112½	111⅞	112½	0
51⅛	42	49½	42	4,559,850	25	S. O. Nebraska	62cQ	June 20, 27	200	44	44½	44	44½	+ ½
672	288	86	73	14,000,000	25	S. O. Ohio	62½cQ	July 1, 27	500	73	74	73	74	+ 1
120½	116½	122	117¼	7,000,000	100	do pfd.	$1¾Q	June 1, 27	40	118	118	118	118	— 1
23	15½	18	14½	861,466	25	Swan Finch Co.	.....	Nov. 1, 19	.....	.....	.....	.....	.....	.....
109¾	90¼	134⅜	95⅛	62,470,800	25	Vacuum Oil	‡50cQ	June 20, 27	3,600	132	132¼	129	129½	0

*New high †New low xEx dividend ‡Also extras.

New York Bonds

Week Ending July 8

	High	Low	Last	Ch'ge
Amer. Rep. deb. 6s	99¼	99¼	99¼	0
Assoc. Oil gold 6s	102⅞	102¾	102⅞	+ ⅛
Atlantic Refg. deb. 5s	101½	101	101	0
Barnsdall Corp. 5s	99½	98½	98½	— ⅞
Barnsdall Corp. 6s ex war.	90	89¾	90	0
Cal. Petrol. 5s	93	92¼	93	+ ⅞
Cal. Petrol. 5½s	97	96⅜	96⅜	— ¼
Empire Gas & Fuel 7½s	110	109⅞	109⅞	0
Empire Gas & Fuel 6½s	105½	105⅜	105⅜	— 18
Gen. Asphalt 6s	107	106	107	+ ½
Gen. Petrol. 5s	100¾	100½	100¾	0
Humble Oil & Refg. 5½s	102¼	101¾	102¼	+ ¼
Humble Oil 5s wi	98¼	97⅞	98¼	+ ¾
Mid-Cont. Pet. 6½s	104½	104	104	0
Pan-Amer. P & T 7s	106	105¾	106	+ ⅜
Pan-Amer. P & T 6s	102⅞	102½	102⅞	+ ¼
Pan-Amer. P & T 6s	92½	92	92¼	— ¼
Prod. & Refnr. 8s ex. war.	111	111	111	0
Simms Pet. cvt. 6s	98	97½	97½	— ½
Sinclair Con. Oil Col 7s	99	98⅝	99	+ ⅜
Sin. Con. Oil Con. 6½s	94	93	94	+ ½
Sinclair Con. Oil 6s	100	99¾	99¾	— ¼
Sinclair Crude Oil 6s	100¼	100	100¼	— ¼
Sinclair Pipe Line sf 5s	92¾	92½	92⅝	— ⅛
Skelly Oil 5½s	94⅞	94	94	— ⅜
Standard Oil N. Y. 4½s	94¾	94¼	94¾	+ ¼
Standard Oil N. J. deb. 5s	102⅜	102⅛	102⅛	0
Union Oil of Cal. 6s-A	107½	107	107½	0
Union Oil of Cal. 1st 5s	102	101½	102	+ 1
Union Oil of Cal. 5s-C	96⅞	96⅞	96⅞	+ ⅜

New York Curb Bonds

Week Ending July 1st

	High	Low	Last	Ch'ge
Beacon Oil 6s '36	97½	97½	97½	+ ¼
Cities Serv. 5s '66	89¼	88⅝	89	+ ⅜
Cities Serv. 6s '66	100¼	100	100¼	+ ¼
Cities Serv. G 5½ '42	96¼	96¼	96¼	— ⅛
Empire Oil 5½ '42	96⅛	96	96	— ⅛
Galena S. O. 7s '30	90½	90	90⅛	0
General Pet. 6s '28	100⅜	100⅝	100⅝	0
Gulf Oil 5s '37	99¾	99⅜	99¾	+ ¼
Gulf Oil Pa. 5 '47	99	98⅞	99	+ ⅛
Indepen. Oil 6s '39	99	99	99	0
Pennok Oil 6s '27	99½	99½	99½	0
Phillips Pet. 5½s '39	99½	99	99½	+ ¼
Pure Oil 6½s '33	104	103½	104	+ ½
Richfield Oil 6s '41	92¼	92¼	92¼	0
S. O. N. Y. 6½s '33	104¾	104½	104½	0
Sun Oil 5½s '39	100⅜	100⅜	100⅜	0
Trans. Cont. Oil 7s. '30	114½	111	113½	+2¼
United Oil Prod. 8s '31	80	80	80	0
Warner-Quinn 6s '42	99	81¼	98⅞	— ⅛

New York Curb Market

1926 High	1926 Low	1927 High	1927 Low	Par Value	Stocks	Transactions Week Ended July 8th Sales	First	High	Low	Last	Change
6¾	45	2⅛	.65	$5	Amer. Con. Oilfields	8,200	72	80	†65	73	—11
14½	4	7½	3	N.P.	Amer. Maracaibo	4,600	4	4⅛	3¾	4	0
8⅜	5⅜	9⅜	6¾	$10	Arkansas Nat. Gas	3,600	8⅞	*9⅜	8¾	9⅜	— ⅛
20⅜	14⅛	20½	15½	N.P.	Beacon Oil	.....	.....	.....	.....	.....	.....
85¼	60	27	20½	N.P.	British American	.....	.....	.....	.....	.....	.....
28⅜	9¼	28¼	14⅜	25c	Carib Syndicate	40,500	20	26	20	24¼	+ 2¼
....	....	26	16½	....	do ctfs. of deposit	.....	.....	.....	.....	.....	.....
51	37½	58¾	40¼	$20	Cities Service	4,900	45½	45¾	45⅜	45½	0
92½	82⅜	92¼	87	100	do pfd.	1,700	87⅝	88	87½	88	+ ⅜
8⅜	7⅜	8½	7⅜	10	do pref. B	.....	.....	.....	.....	.....	.....
25¼	19	29¼	23	10	do bankers' shares	.....	.....	.....	.....	.....	.....
3½	1⅜	3⅛	1¾	$1	Colombia Syndicate	10,300	2⅛	2¼	2 1/16	2⅛	0
10⅛	8⅛	9½	8¼	10	Consolidated Royal	.....	.....	.....	.....	.....	.....
16	10	14⅞	9⅞	N.P.	Creole Syndicate	49,200	10	11½	10	11⅜	+ 1¾
7⅜	1⅛	3	1	N.P.	Crown Central	200	....	1¼	1⅛	1⅛	— ⅛
8½	½	12	4¾	....	Darby Petroleum	.....	.....	.....	.....	.....	.....
....	....	11½	7	....	do trust ctfs.	.....	.....	.....	.....	.....	.....
4	1¾	2½	1¼	N.P.	Derby Oil & Refining	.....	.....	.....	.....	.....	.....
19	13	16¾	10	N.P.	do pfd.	.....	.....	.....	.....	.....	.....
7½	2½	3¾	1⅝	N.P.	Gibson Oil	4,800	1¾	1⅞	1¾	1⅞	+ ⅛
2	.63	1⅜	40	N.P.	Gilliand ctfs.	.....	.....	.....	.....	.....	.....
98	82	96½	86¼	$25	Gulf Oil Corp.	5,300	91	92⅞	89⅜	89¾	— 2⅛
3⅜	1	2¼	1¼	N.P.	Kirby Petroleum	600	1⅜	1⅜	1⅜	1⅜	0
12¾	5¾	10⅞	6	N.P.	Leonard Oil & Dev.	5,900	8	9	7⅜	9	+ 1
27	20	27½	22	N.P.	Lion Oil & Refg.	8,200	23⅞	26⅜	23⅞	25⅜	+ ⅜
46	31	46½	37	$25	Lone Star Gas	.....	.....	.....	.....	.....	.....
2¾	2	2⅞	1⅛	1	Magdalena Synd.	13,100	....	2	1⅛	1¾	+ ½
5½	1⅞	3	1½	10	Mexican-Panuco	.....	.....	.....	.....	.....	.....
1¾	1¼	1½	1	1	Mountain & Gulf	.....	.....	.....	.....	.....	.....
26	23	26⅞	22¾	10	Mountain Producers	1,600	23⅜	24	23⅜	23¾	+ ⅜
6¾	5	5⅞	4⅞	5	New Bradford	100	4⅞	4⅞	4⅞	4⅞	— ⅛
11¾	2	6¼	4	10	New England Fuel	.....	.....	.....	.....	.....	.....
17	9⅛	16	9¼	1	New Mex. & Ariz.	100	11¾	11¾	11¾	11¾	— ½
17	8	13¼	9	25	New York Oil	1,100	....	12	11	12	+ ½
12⅛	8¾	12⅝	11⅛	N.P.	North Cent. Texas	300	10½	10½	10½	10½	— ½
44¾	33	.....	.....	$25	Ohio Fuel Corp.	.....	.....	.....	.....	.....	.....
33	28½	27½	21¼	....	Okla. Nat. Gas ctfs.	.....	.....	.....	.....	.....	.....
10⅛	5⅞	9⅜	4½	N.P.	Pandem	400	4¾	4¾	4½	4½	— ¼
12¼	11¾	12⅝	9¾	N.P.	Pantapec Oil	800	....	10	9¾	10	0
2¾	.20	.37	.25	N.P.	Peer Oil Corp.	.....	.....	.....	.....	.....	.....
22¾	12	13½	6½	$10	Pennok Oil	200	6⅝	7⅛	6⅝	7⅛	+ ⅜
38	14⅛	24⅜	14½	25	Red Bank Oil	300	16	16	15	15	0
30¼	12	15½	4¼	N.P.	Reiter-Foster	700	4¼	5	4¼	5	+ ⅞
27½	22	27½	15	$25	Richfield Oil	.....	.....	.....	.....	.....	.....
7½	4½	7	4½	N.P.	Ryan Consolidated	100	6	6	6	6	+ ⅜
10	7½	8	6	$10	Salt Creek Cons.	300	6⅜	6⅜	6¼	6¼	0
36	26⅞	32	27¼	10	Salt Creek Prod.	2,100	27⅜	28¼	27⅜	28⅛	+ ⅜
4⅜	1⅛	7	2⅜	5	Savoy Oil	.....	.....	.....	.....	.....	.....
27	7⅝	26½	17	10	Tidal Osage	400	22	23½	22	22	— 1½
25¾	7⅜	23¾	15	10	do non-voting	6,800	21	22	19¾	19¾	— 1¾
....	....	88	63½	100	Transcontinental pfd.	700	86	*88	84	86	— ¼
3	4⅛	7⅜	4¼	5	Venezuelan Petro.	600	4⅝	5	4⅝	5	+ ⅜
31⅛	22	32⅜	20⅜	N.P.	Wilcox Oil & Gas	1,000	22⅞	23¼	22⅞	23¼	— ¼
9½	4⅜	8	5¼	$1	Woodley Petroleum	.....	.....	.....	.....	.....	.....

*New High †New Low xEx-Dividend

(*Continued from page* 114)

is classed as fairly good motor fuel. In the last week one major company joined the other larger refineries in refusing to permit the sale of their motor fuel at stations which continue to cut the price, or refuse to sell at the uniform service station of 19½ cents in the Los Angeles district. This move by all the major companies has served really to increase the sale of cut price gasoline as several of the larger Independent stations refused to quit selling the lower priced product, and when the major companies refused to sell their product, these larger stations then sold only at cut prices. But this apparently is having no effect on the major companies, as they are determined to continue their efforts to solve the cut price situation.

California Shipments, Week Ended July 2

LOS ANGELES, July 9.—Petroleum from Los Angeles Harbor in the week ended July 2 to points outside Pacific Coast trade territory, totaled 1,244,147 barrels, a daily average of 177,735 barrels.

Pacific foreign drew 110,103 barrels of crude, 200,095 barrels of fuel, 61,977 barrels of kerosene and 4721 barrels of lube. Atlantic domestic was destination for 348,786 barrels of fuel, 95,651 barrels of gasoline and 154,134 barrels of gas oil. Atlantic foreign drew 125,114 barrels of fuel and 148,287 barrels of gasoline.

During June, total shipments to points outside Pacific Coast trade territory were 5,756,326 barrels, a daily average of 191,877 barrels. The shipments were divided as follows:

Crude, 1,058,265 barrels; fuel, 3,106,914 barrels; gasoline, 1,147,122 barrels; kerosene, 113,256 barrels; Diesels, 170,608 barrels; tops, 148,732 barrels; distillate, 1905 barrels and 9524 barrels of lube.

Foreign Opportunities

Reserved information may be obtained from the Bureau of Foreign and Domestic Commerce, Washington, and its district and cooperative offices by duly registered firms and individuals upon written request by opportunity number. The Bureau does not furnish credit ratings or assume responsibility as to the standing of foreign inquirers; the usual precautions should be taken in all cases, and where no references are offered it does not necessarily imply that satisfactory references could not be given. Correspondence may be in English unless otherwise stated.

26264.—**Asphalt**, Amsterdam, Netherlands, purchase.

26265.—**Gasoline**, Montreal, Canada, purchase.

26143.—**Kerosene and paraffin**, Tientsin, China, agency.

26144.—**Asphalt, bitumin, fluxing oil, road oil**, Hamburg, Germany, agency and purchase.

26145.—**Gasoline, kerosene and lubricating oils**, Loands, Amgola, purchase and agency.

THE OIL INDUSTRY EXCHANGE

Positions Wanted

SUPERINTENDENT WANTED—Twelve years experience with all types of crude and modern refining equipment including cracking, vacuum and tube still distillation, wishes to make a connection with an established company. Address Box 898.

REFINERY ASSISTANT SUPERINTENDENT—16 years experience, can handle any position in complete plant. Salary of secondary consideration. Address Box 897.

JUNIOR EXECUTIVE now in employ of large marketing company. Experienced in accounting and credits, some sales. Young married man. Box 908.

ARE YOU CONSIDERING an Eastern and Export office of your own at New York, Philadelphia or Baltimore? Have had long varied Export and Domestic experience with large petroleum corporation as department manager. Will be available July 15th. Excellent references. Box 909.

YOUR CREDITS

Seasoned credit man now employed by refinery available in August.

FACTS

1. Organized and installed present credit department.
2. Stopped credit leaks.
3. Improved collections.
4. Resourceful trained executive can see beyond credit man's desk.

Box 881

Situations Open

TANK CAR SALESMEN

Refiner requires services high grade men with jobber following to sell ETHYL gasoline. Straight salary or liberal commission. Applicants must be thoroughly experienced selling gasoline. Those with jobber following preferred. This is excellent opportunity.

ADDRESS BOX 906

Sales Engineer Wanted

Leading manufacturer requires services of salesman for industrial field. Engineering graduate age 25-30 with two or three years sales experience preferred. Position offers exceptional opportunity to right man. Write full details education and experience enclosing photograph if possible.

Address Box 907

Situations Open

SALESMEN WANTED

Large refiner wants experienced salesmen to cover territories in Illinois, Wisconsin, Indiana and Ohio. Give references and salary expected.

Address Box 910

For Sale

AN OPPORTUNITY TO PURCHASE

a twenty year old establishment and going oil company.

Operates in a large eastern city of about 500,000, close to a number of refineries. Distributes gasoline, kerosene, lubricating oils, etc. Large gallonage. Owns and operates filling stations and wholesale tank wagon routes. Valuable plant and real estate. Has always operated profitably.

Investment required $250,000. Reply by mail only.

John H. Hendrick,
350 Madison Avenue,
New York City.

Economy in Production

Do you realize how many hundreds of thousands of dollars are lost annually by accumulation of used engines, drilling equipment, etc., in refineries, warehouses or on leases?

Don't let your money be tied up in anything you don't need. Look over the equipment you are not using and write us about it. We'll sell it to some of our 15,000 readers.

Miscellaneous

WHAT IT COSTS

"For Sale," "Wanted to Buy," "Help Wanted," "Business Opportunities," "Miscellaneous" classifications, set in type this size without border—10 cents a word. Minimum charge, $3.00.

"Positions Wanted"—5 cents a word. Minimum charge $1.00.

Advertisements set in special type or with border—$4.00 per column inch.

Copy must reach us not later than Friday preceding date of issue.

All advertisements carried on this page are payable in advance.

Advertisers having box numbers should be addressed in care of National Petroleum News, 817 Huron road, Cleveland, Ohio, unless otherwise specified.

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